

Enhancing Children's Creative Literacy through Fairy-Tale Development and Augmented Reality at Rumah Baca Riang Education

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Abstract. *Children's creative literacy involves not only the ability to read but also the ability to generate and develop ideas into structured written stories. Initial conditions at Rumah Baca Riang Education, Bangil, Pasuruan, indicated that among the 30 children involved, 20 children (66.7%) had never written a story before the program, while 21 children (70%) were not yet able to develop a story plot. In addition, the use of interactive digital technology, particularly Augmented Reality (AR), had not yet been incorporated into literacy activities at the reading house. These conditions indicated the need to strengthen children's creative literacy through activities that enabled them to produce their own stories while becoming familiar with emerging literacy technologies. This community service program aimed to develop children's abilities to generate story ideas, develop characters and plots, compose structured fairy tales, and explore the use of AR as a supporting literacy medium. The program employed a Participatory Action Research (PAR) approach through collaborative problem identification with the partner, planning, action through training and practice, observation and evaluation, and reflection. The training, conducted on July 2, 2026, was attended by 30 children and included activities related to the Gerakan Tujuh Kebiasaan Anak Indonesia Hebat, fairy-tale development, writing practice, and an introduction to AR technology. Following mentoring and selection of the children's works, seven stories were further developed, with one story integrated with AR technology using Artivive. The results indicated children's active involvement in generating and developing their own stories and gaining direct experience in using AR as part of creative literacy activities. The program provided a contextual literacy experience that connected writing skills, creativity, cultural literacy, and technology use*

Katakunci:

Anak-anak;
Dongeng;
Kreatif;
Tertambah.
Cerita
Literasi
Realitas

Abstrak. Literasi kreatif anak tidak hanya berkaitan dengan kemampuan membaca, tetapi juga kemampuan menghasilkan dan mengembangkan gagasan menjadi karya cerita yang terstruktur. Kondisi awal di Rumah Baca Riang Education, Bangil, Pasuruan, menunjukkan bahwa dari 30 anak yang terlibat, sebanyak 20 anak (66,7%) belum pernah menulis cerita, sedangkan 21 anak (70%) belum mampu mengembangkan alur atau plot cerita. Selain itu, pemanfaatan teknologi digital interaktif, khususnya *Augmented Reality* (AR), belum menjadi bagian dari kegiatan literasi di rumah baca tersebut. Kondisi tersebut menunjukkan perlunya penguatan literasi kreatif melalui kegiatan yang memungkinkan anak menghasilkan karya secara langsung sekaligus mengenal teknologi literasi baru. Kegiatan pengabdian kepada masyarakat ini bertujuan mengembangkan kemampuan anak dalam menghasilkan ide cerita, mengembangkan tokoh dan alur, menyusun cerita dongeng secara terstruktur, serta mengenalkan pemanfaatan AR sebagai media pendukung literasi. Kegiatan dilaksanakan menggunakan pendekatan Participatory Action Research (PAR) melalui tahapan identifikasi masalah bersama mitra, perencanaan, tindakan berupa pelatihan dan praktik, observasi dan evaluasi, serta refleksi. Pelatihan yang dilaksanakan pada 2 Juli 2026 diikuti oleh 30 anak dan mencakup pengenalan Gerakan Tujuh Kebiasaan Anak Indonesia Hebat, pengembangan cerita dongeng, praktik menulis, serta pengenalan teknologi AR. Setelah proses pendampingan dan seleksi karya, 7 karya anak dikembangkan lebih lanjut, dengan salah satu karya diintegrasikan dengan teknologi AR menggunakan Artivive. Hasil kegiatan menunjukkan adanya keterlibatan anak dalam menghasilkan dan mengembangkan karya cerita serta pengalaman langsung dalam menggunakan teknologi AR sebagai bagian dari aktivitas literasi kreatif. Kegiatan ini memberikan pengalaman literasi yang menghubungkan kemampuan menulis, kreativitas, literasi budaya, dan pemanfaatan teknologi secara kontekstual.

1 Introduction

Children's literacy encompasses not only the ability to read and understand information but also the ability to generate ideas, communicate them, and produce creative works. In this study, creative literacy refers to children's observable ability to generate story ideas, express ideas in writing, develop characters and plot sequences, organize a simple story, and produce a creative literacy product. Children's literature can support imagination, aesthetic experiences, language development, and the introduction of life values (Dijipu & Masie, 2018), while creative literacy activities that involve children in producing works

can also encourage positive attitudes toward reading (Chow et al., 2018). Therefore, strengthening creative literacy requires learning experiences that move children from being readers to becoming creators of literacy materials.

A reading center is an important non-formal literacy space because it can function not only as a place for accessing books but also as a space for interaction, learning, and creative development (Pratiwi & Asyarotin, 2019). Rumah Baca Riang Education in Latek, Bangil, Pasuruan, provides shared reading, learning assistance, and creative activities for predominantly elementary-school children. Initial observations and discussions with the program administrator indicated that the reading center had approximately 15–20 active visitors per week, around 50 children's books, and literacy activities conducted two to three times a week. Most of the available materials were conventional printed books. The partner also identified limitations in children's systematic story-writing activities, the documentation of children's works, and the use of interactive digital media. To obtain more specific evidence of the creative-literacy problem, a simple baseline assessment was conducted with 30 children. The results showed that 20 children (66.7%) had never written a story before the program, while 21 children (70%) were not yet able to construct a story plot. These findings indicate that the problem was not merely a lack of reading materials but also a limitation in children's opportunities and skills to transform ideas into structured written stories. The baseline observation also indicated that children had participated in storytelling and drawing activities, but these activities had not yet developed into systematic story production and documentation. In addition, the partner reported that children had not previously acquired knowledge and practical skills in using *Augmented Reality* (AR) as part of literacy activities.

Based on these findings, the problems were prioritized into two measurable areas. The first was creative story-production skills, indicated by children's ability to generate ideas, develop characters, construct plot sequences, express ideas in writing, and produce a structured fairy tale. The second was basic digital literacy through AR, indicated by children's familiarity with AR and their ability to follow basic

procedures for accessing interactive content. Documentation was positioned as a product-level indicator: stories produced during the program were expected to be collected and developed into reading materials for the partner. The integration of the *Gerakan Tujuh Kebiasaan Anak Indonesia Hebat* (Seven Habits of Great Indonesian Children) was not treated as a separate activity but as part of the story-production process. Children were guided to select relevant habits as story themes, represent the habits through characters' actions, develop situations or conflicts related to those habits, and communicate the values through the story's resolution and message. In this way, the seven habits became part of the narrative structure rather than merely information presented to children. The approach is consistent with the role of children's stories in presenting life values through characters, events, and narrative situations.

Digital technology provides an additional opportunity to make this creative literacy process more interactive. *Augmented Reality* enables digital content to be connected with physical reading materials through digital devices. A systematic review by Sakr and Abdullah (2024) found that AR and VR-based learning have been associated with increased learner motivation and attention as well as learning-related outcomes, although implementation needs to consider the characteristics of users and learning contexts. Law and Heintz (2021) similarly emphasized usability and user experience as important considerations in AR applications for K–12 education. In children's literacy, Pan et al. (2021) identified AR as a developing area with potential for integrating technology into literacy experiences, while Danaei et al. (2020) reported differences in several story-reading outcomes between children using AR storybooks and those using printed storybooks. Şimşek and Direkçi (2023) also reported potential benefits of AR storybooks for several aspects of reading comprehension. These studies support the use of AR as a complementary medium; however, the present program does not position AR as a replacement for printed books or claim that AR alone improves reading comprehension. Instead, AR is used as a basic digital-literacy tool that allows children to experience their own stories as interactive reading materials.

The initial information obtained from the partner directly informed the design of the community service activities. Because most children had limited experience in producing structured stories, the training began with generating ideas and identifying characters, settings, events, problems, and resolutions before moving to manuscript development. Because the Seven Habits had not previously been systematically integrated into literacy activities, the writing exercises required children to embed selected habits into characters' actions, conflicts, and resolutions. Because children had not previously used AR in the reading-center context, AR activities focused on basic operations, including identifying the trigger image, scanning the image, and accessing the digital content. The stories produced through the training were then developed into digital reading materials that could be retained and used by *Rumah Baca Riang* Education. The novelty of this community service program lies in integrating children's creative story production, character-value integration, and basic AR literacy within a single participatory process, while converting children's own stories into digital literacy materials for continued use by the partner. Thus, the program was designed not simply to introduce AR or conduct creative-writing training separately, but to connect writing, character education, digital literacy, and the sustainability of community-based reading materials.

Accordingly, the objectives of this community service program were (1) to improve children's ability to create and develop stories; (2) to integrate the values of the Seven Habits into their stories; (3) to improve children's basic skills in using AR; and (4) to create digital stories that can be used by *Rumah Baca Riang* Education.

2 Method

This community service program employed a Participatory Action Research (PAR) approach because the program was designed to address problems identified jointly with the partner and to involve children and the reading-house community in the process of planning, action, evaluation, and reflection. The approach was appropriate for *Rumah Baca Riang* Education because the program was not limited to delivering information but aimed to develop practical skills and produce literacy

materials that could be used by the partner. The implementation focused on strengthening children's story-development skills, integrating the values of the Seven Habits of Great Indonesian Children into their stories, introducing basic AR skills, and developing digital stories for the reading house.

The program was conducted at Rumah Baca Riang Education, Latek, Bangil, Pasuruan, East Java, involving 30 elementary-school-aged children. The activities were conducted through a workshop and follow-up process. The initial stage involved identifying the partner's needs through observation, discussion with the reading-house administrator, and a simple baseline assessment of the children's story-writing experience and skills. The baseline assessment showed that 20 of the 30 children had never written a story before the program, while 21 children were not yet able to construct a story plot. These findings were used to determine the focus of the training and the learning activities.



Figure 1. Community Service Implementation Flow

The implementation consisted of interconnected stages. First, the team and partner identified the children's literacy needs and established the training priorities. Second, children participated in story-development activities covering idea generation, character development, plot construction, written expression, and story completion. Third, the values of the Seven Habits were integrated into the narrative by guiding children to represent selected habits through characters' actions, story events, conflicts, resolutions, and messages. Fourth, children were introduced to the basic use of Augmented Reality (AR) through the Artivive platform, including the use of trigger images and access to digital content. The children's stories were then mentored and developed into digital reading materials. A follow-up activity was conducted to examine the readability of the stories and the usability of the AR features. The evaluation focused on children's ability to understand the story, respond to its language, characters, plot, illustrations, and message, as well as their ability to access and use the AR features. The results of the observation, children's responses, and reflection were used to identify aspects requiring improvement and to support the continued use of the resulting stories by *Rumah Baca Riang* Education.

3 Results

a. Creative Literacy Products Produced by the Children

The community service intervention resulted in seven original children's stories that were selected for further development and publication. Each story represents one of the seven values promoted through the *Gerakan Tujuh Kebiasaan Anak Indonesia Hebat* (G7KAIH), namely waking up early, worshiping, exercising, eating healthy and nutritious food, enjoying learning, participating in community life, and going to bed early. The stories were developed from the children's own ideas and expressed through imaginative characters, settings, and narrative situations. This outcome demonstrates that the literacy intervention generated concrete creative products rather than ending at the level of training participation.

Table 1. Children's Stories and Representation of the Seven G7KAIH Values

No	Children's Story	Seven Habits Represented
1	<i>Sasa si Peri Bunga</i>	Waking up early
2	<i>Si Bolang</i>	Worshipping
3	<i>Roger Si Tikus</i>	Exercising
4	<i>Putri Salju dan Ramuan Ajaib</i>	Eating healthy and nutritious food
5	<i>Putri Duyung yang Gemar Belajar</i>	Enjoying learning
6	<i>Pierre Tendean</i>	Participating in community life
7	<i>Gatotkaca dan Rahasia Tidur Cepat</i>	Going to bed early

The seven stories were subsequently compiled into a children's storybook entitled *Roger Si Tikus: Cerita Dongeng 7 Kebiasaan Anak Indonesia Hebat*. The collection presents the seven G7KAIH values through different characters and imaginative narrative settings. The use of diverse characters, including a fairy, a mouse astronaut, a mermaid, and the wayang character *Gatotkaca*, demonstrates that character values can be incorporated into children's narratives while maintaining imaginative elements characteristic of children's literature.

An important result of the intervention is the change in the role of children within the literacy activity. The children were not positioned solely as readers or recipients of character messages. Seven children's works were developed into published reading materials, placing the children in the position of creators of literacy

content. Through their stories, the children expressed ideas, developed characters and narrative events, and represented the G7KAIH values from their own perspectives. The resulting book therefore documents children's creative expression while simultaneously providing the partner with a new literacy resource.

The implication of this result for Rumah Baca Riang Education is the availability of a documented, reusable, and child-generated reading resource. The product extends the function of the reading house beyond providing access to existing books by incorporating children's own creative works into its literacy collection. The book subsequently became part of the reading house's collection and was used in shared-reading activities, allowing the results of the intervention to continue supporting literacy activities after the main training had ended.

b. AR-Integrated Digital Literacy Product

In addition to the seven original children's stories, one story was further developed by integrating Augmented Reality (AR) technology using Artivive. The integration transformed the selected story from a conventional printed narrative into an interactive reading material in which the illustrations functioned as trigger images for accessing digital content through a mobile device. The resulting product combined children's written narratives, illustrations, and digital content within a single reading experience.

The AR integration was designed as a complement to the printed story rather than a replacement for the text and illustrations. When the designated illustration was scanned using Artivive, digital content could appear to support the narrative. The resulting format therefore extended the function of the printed book by connecting static illustrations with interactive digital elements. In the developed book, AR content included visual and audio elements that supported the story.

Table 2. Output of Augmented Reality Integration

Indicator	Result
Number of stories integrated with AR	1 story
AR platform	Artivive
AR mechanism	Illustration as a trigger image
Digital content	Interactive visual and audio content
Output format	AR-supported children's story
Target use	Reading and digital literacy activities at Rumah Baca Riang Education

The development of one AR-integrated story provides *Rumah Baca Riang* Education with an initial model of technology-supported literacy material. The product expands the reading house's literacy resources from conventional printed materials toward a combination of print and digital interaction. It also provides a concrete example that children's own creative works can be further developed into technology-supported reading materials.

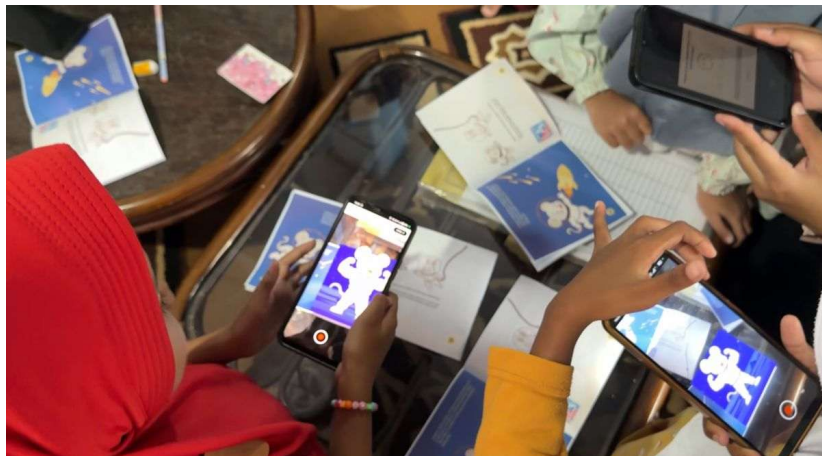


Figure 2. Children accessing and practicing the AR feature of the developed storybook.

Figure 2 serves as visual evidence that the AR component was not merely incorporated into the product technically but was also accessed and tested by the children. The follow-up technology testing documented that the children tried to access and use the AR features of the developed storybook.

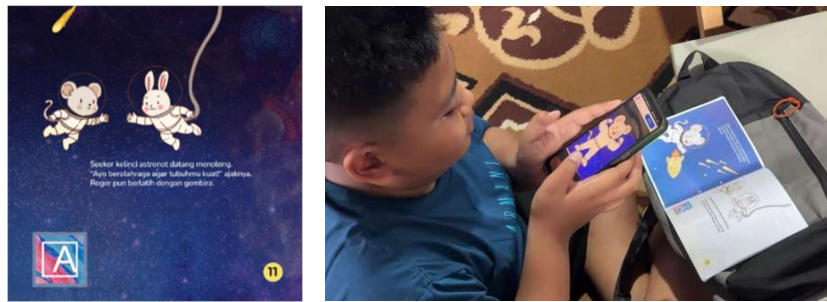


Figure 3. Display of the children's fairy tale integrated with Augmented Reality.

Figure 3 presents the form of the resulting AR-supported literacy product, showing how the storybook illustration is connected to digital content. Together, Figures 2 and 3 provide complementary evidence: Figure 2 documents the use of the technology by the children, while Figure 3 demonstrates the resulting AR-integrated story product.

Overall, the AR component represents a concrete digital literacy output of the intervention. Although only one story was developed with AR, the product demonstrates the feasibility of extending children's creative writing into an interactive digital reading material that can be used by the partner in subsequent literacy activities.

c. Reading and Technology Testing

Following the development of the children's stories, a reading and technology testing session was conducted on August 2, 2026 with the seven children whose works had been selected for further development. The testing was intended to observe how the children responded to the developed stories and to provide direct experience with the AR-supported reading material. The activities focused on reading the stories, responding to their content and visual elements, and trying the AR feature.

The reading test showed that the children were able to read and respond to several aspects of the stories, including the language, story content, characters, plot, events, messages, and illustrations. The children were also invited to identify parts of the stories they liked or found difficult and to provide their responses through discussion and the response instrument. These observations provided evidence that the developed stories could be used as reading materials that encouraged children to engage with both the narrative and its visual components.

The technology testing was conducted by introducing the children to the AR feature and allowing them to access and operate it using a mobile device. The children tried scanning the designated illustrations and observing the digital content that appeared through the AR application. During this session, the team observed the children's ability to access and interact with the AR feature, while providing assistance when necessary. The testing therefore provided practical experience with AR as part of a digital literacy activity.

Table 3. Results of Reading and Technology Testing

Testing Aspect	Observed Result
Reading the developed stories	Children were able to read the stories and engage with the narrative content
Understanding of story elements	Children responded to language, characters, plot, events, and messages
Response to visual elements	Children responded to illustrations and other visual components of the stories
Reading response	Children identified parts they liked and parts they found difficult

AR access	Children tried accessing the AR feature using a mobile device
AR interaction	Children practiced scanning the designated illustrations and observing the digital content
Assistance during AR use	Assistance was provided when needed during the technology testing

The findings demonstrate that the intervention produced not only written literacy products but also opportunities for children to use and respond to technology-supported reading materials. The reading test provided evidence of children's engagement with the developed stories, while the technology test documented their direct experience in accessing the AR component. These findings are presented as observational results of the testing activities, rather than as evidence of statistically measured improvement or achievement of a particular proficiency level.

d. Impact on the Partner

The community service intervention generated tangible outputs that could be utilized directly by **Rumah Baca Riang Education**. The seven children's stories developed during the program were compiled into a children's storybook, *Roger Si Tikus: Cerita Dongeng 7 Kebiasaan Anak Indonesia Hebat*. The book provides an additional reading resource for the reading house and extends the function of the children's creative works beyond the training activity. ISRM G7KAIH (1)

The developed stories also integrate the values of the **Gerakan Tujuh Kebiasaan Anak Indonesia Hebat (G7KAIH)** into narrative situations. Through the stories, the seven habits—waking up early, worshipping, exercising, eating healthy and nutritious food, enjoying learning, participating in community life, and going to bed early—are presented through characters and story events. Thus, the values are

incorporated into children's reading materials rather than being presented only as separate instructional messages.

For the partner, the product provides an additional source of reading material that can support **shared-reading and literacy activities** at *Rumah Baca Riang* Education. The developed book was added to the reading house's collection and used in subsequent reading activities. In addition, the integration of AR into one story introduced a form of digital literacy that had not previously been part of the reading house's conventional print-based literacy resources.

The impact can therefore be understood at three related levels: literacy resources, character-oriented content, and digital literacy exposure. The intervention expanded the partner's collection through children-generated reading materials, embedded the G7KAIH values within stories, and introduced an AR-supported reading format that could be explored in subsequent literacy activities.

Table 4. Outputs and Implications for the Partner

Output	Implication for Rumah Baca Riang Education
Seven original children's stories	Provides locally developed reading materials for children's literacy activities
<i>Roger Si Tikus: Cerita Dongeng 7 Kebiasaan Anak Indonesia Hebat</i>	Adds a new children's storybook to the reading house's collection
Integration of seven G7KAIH values	Provides reading materials that incorporate character-oriented values through narrative
One story integrated with AR using Artivive	Introduces an AR-supported format as an additional digital literacy resource

Children's works developed into a documented book	Converts children's creative outputs into reusable literacy materials
Reading and AR testing	Provides an initial experience of combining story reading with digital interaction

4 Discussion

a. Creative Story Writing as a Strategy for Strengthening Children's Creative Literacy

The results of the community service program demonstrate that creative literacy can be strengthened when children are positioned not only as users of reading materials but also as creators of reading content. Among the 30 children who participated in the program, 20 children (66.7%) had never written a story before the activity, while 21 children (70%) were not yet able to develop a story plot. These baseline conditions indicate that the main challenge was not simply limited access to reading materials, but also the limited opportunity for children to transform their ideas into structured written narratives. Following the intervention, seven children's stories were selected for further development and compiled into a reading product. This result shows that the intervention created a concrete pathway from children's initial ideas to documented literacy products.

This finding is relevant to the concept of creative literacy, which extends literacy beyond the ability to receive and understand texts toward the ability to produce, interpret, and communicate meaning creatively. Chow et al. (2018) found that creative literacy activities can support positive attitudes toward reading, suggesting that literacy activities become more meaningful when children are actively involved in creative processes. In the present program, this principle was implemented through story creation, in which children transformed ideas and everyday experiences into characters, events, and narratives. Thus, the result provides a practical example of how

creative literacy can be implemented within a community reading environment.

The finding is also relevant to the role of a community reading center as a community-based learning space. Pratiwi and Asyarotin (2019) explain that community reading centers have a role not only in providing access to reading materials but also in supporting literacy development within the community. The present intervention extends this function by enabling children to contribute directly to the production of reading materials. The seven stories therefore have significance beyond their function as outputs of a training session: they represent children's creative contributions that can be documented, shared, and utilized within the reading center.

The impact on the partner is particularly visible in the expansion of the reading center's literacy resources. Instead of relying predominantly on externally produced printed materials, Rumah Baca Riang Education gained reading material originating from the creative work of its own young visitors. This creates a stronger connection between the children, the reading materials, and the literacy environment in which the materials are used.

b. Integration of the *Gerakan Tujuh Kebiasaan Anak Indonesia Hebat* into Children's Stories

The integration of the *Gerakan Tujuh Kebiasaan Anak Indonesia Hebat* (G7KAIH) provided a thematic framework through which children could connect literacy production with everyday character-related experiences. The seven stories represented the habits of waking up early, worshiping, exercising, eating healthy and nutritious food, enjoying learning, participating in community life, and going to bed early. Rather than presenting these habits as separate instructional statements, the program encouraged their representation through characters, actions, events, and story situations.

From the perspective of children's literature, stories can provide a contextual medium for presenting values through characters and narrative events. Jambak and Eliza (2020), for

example, demonstrate the use of cultural elements in picture-story development as a medium for children's character building. Similarly, Harefa et al. (2025) discuss the relationship between picture-book reading, language development, and character growth. In the present community service program, the value-oriented approach was extended from children reading stories containing values to children creating stories that communicate those values.

This distinction is important for interpreting the impact of the program. The children were not merely recipients of messages concerning the seven habits; they were involved in translating the themes into narrative forms. The process therefore connected language production with the representation of behaviors that are relevant to children's everyday lives. In this sense, literacy became a medium through which children could communicate ideas about desirable habits through their own creative works.

The integration of G7KAIH also strengthened the relevance of the resulting materials for the partner. The stories provide *Rumah Baca Riang* Education with reading materials that combine literacy content and character-oriented themes. Consequently, the products can support shared-reading and discussion activities in which children can explore both narrative elements and the values represented by the characters and events.

c. Augmented Reality as an Extension of the Reading Experience

The integration of Augmented Reality (AR) addressed another aspect of the partner's literacy context: the limited exposure to interactive digital literacy activities. The program produced seven children's stories, one of which was further developed using Artivive. The AR feature connected selected illustrations in the story with digital content that could be accessed using a mobile device. During the technology testing session, the children were given an opportunity to access and try the AR feature themselves. The result should therefore be understood primarily as the introduction of a new technology-supported literacy experience rather than as evidence of a measured increase in technological proficiency.

This finding is consistent with the broader literature on AR in education. Sakr and Abdullah (2024), in their systematic review, identify the potential of AR and related technologies to create interactive learning experiences, while Law and Heintz (2021) emphasize the importance of usability and user experience when AR is introduced in K–12 educational contexts. In the present program, the relevance of AR was established by embedding the technology within a story that the children could read and recognize, rather than introducing AR as a separate technological exercise.

Research on AR storybooks also provides a theoretical basis for understanding the potential of this approach. Danaei et al. (2020) reported differences in several reading-related outcomes between children using AR storybooks and those using printed storybooks, while Şimşek and Direkçi (2023) found that AR storybooks can support several dimensions of reading comprehension. These studies indicate the potential of AR to enrich story-based reading experiences. However, the present community service activity did not employ a control group or pre-test/post-test design for reading comprehension. Therefore, these previous findings should be treated as theoretical and empirical context rather than evidence that the current intervention improved reading comprehension.

The contribution of the present program lies instead in demonstrating a feasible initial model of digital literacy integration within the partner's existing reading activities. One children's story was transformed into an AR-supported reading product, and the children had direct experience accessing its digital component. This provides *Rumah Baca Riang* Education with an initial prototype that can potentially be developed further while keeping the printed story as the primary reading material.

d. From Readers to Creators: A Change in Children's Literacy Roles

One of the most meaningful implications of the intervention is the shift in children's roles within the literacy environment. The baseline data showed that most participating children had not previously written stories and that many had difficulty developing a plot. The production of seven stories following the intervention

indicates that the children were given an opportunity to move beyond the role of readers toward the role of creators of reading materials.

This finding is consistent with the view that literacy development involves active engagement with texts and the production of meaning. Papen (2020), for example, emphasizes the importance of dialogic engagement with visual and textual materials in developing critical visual literacy. Romadhianti (2020) also demonstrates the use of drawing stories as a means of strengthening literacy and character building. The present program extends these approaches by connecting story creation with character-oriented themes and digital technology.

The change should not, however, be interpreted as evidence of a statistically measured improvement in children's writing ability. The available data document the production of seven stories and children's participation in the writing and technology activities, but they do not provide a standardized pre-test/post-test measurement of writing proficiency. The significance of the result therefore lies in the creation of an opportunity and a concrete pathway for children to produce literacy works.

For the partner, this change has practical implications. The children's works became documented reading materials that could be added to the reading center's resources. The intervention therefore established a cycle in which children can participate in reading, creating, sharing, and using literacy materials. This represents a practical expansion of the literacy function of Rumah Baca Riang Education.

e. Sustainability and Strengthening of the Partner's Literacy Resources

The sustainability of the program is reflected in the transformation of the children's works into materials that can continue to be used after the training. The seven stories were compiled into *Roger Si Tikus: Cerita Dongeng 7 Kebiasaan Anak Indonesia Hebat*, providing Rumah Baca Riang Education with an additional reading resource. One story was also developed with AR,

creating an initial example of how children's creative works can be extended into digital literacy materials.

From a sustainability perspective, the importance of the output lies in its continued usability, rather than simply in the completion of the training. The product can support subsequent reading activities and provide a basis for further story discussions and creative writing activities. The AR-integrated story can also function as an initial prototype for future development. This approach is consistent with Law and Heintz (2021), who emphasize that the educational use of AR needs to consider usability and user experience rather than focusing solely on technological novelty.

The sustainability of the intervention therefore depends on maintaining a balance between creative literacy objectives and technology use. AR should function as a supporting feature that enriches the story rather than replacing the fundamental reading and writing activities. This is particularly relevant in the context of a community reading center, where accessibility, simplicity, and continuity of use are important considerations.

Overall, the findings suggest a model in which the reading center can function not only as a place where children receive and read books, but also as a space where children's works are created, documented, developed, and reused. The relationship among the results, theoretical perspectives, and partner impact can be represented as a cycle:

Creative story writing → G7KAIH integration → children-generated reading materials → AR-supported digital literacy → utilization at *Rumah Baca* → opportunities for further creation.

Thus, the principal contribution of the community service program is not simply the production of seven stories or one AR-integrated story. It is the establishment of an initial community-based creative literacy model that connects children's writing, character-oriented content, digital literacy, and the strengthening of the partner's reading resources.

5 Conclusion

The community service program demonstrated that creative literacy activities can provide children with opportunities to become creators of reading materials while integrating character values and digital literacy. The program involved 30 children, with 20 children (66.7%) having no previous experience in writing stories and 21 children (70%) not yet able to develop a story plot at the initial stage. Following the intervention, seven children's stories were selected for further development and compiled into a reading product representing the seven values of the *Gerakan Tujuh Kebiasaan Anak Indonesia Hebat*, while one story was integrated with Augmented Reality using Artivive. The reading and technology testing also showed that the children were able to engage with the story elements and experience the use of AR as part of a technology-supported reading activity. For the partner, these outputs provide additional reading resources, character-oriented literacy materials, and an initial model of digital literacy that can be utilized in future activities. Further programs are recommended to provide continuous mentoring for children's story development, expand AR integration into additional reading materials, and strengthen the capacity of reading-center managers and volunteers so that the creative and digital literacy model can be sustained independently.

6 References

- Chow, B. W.-Y., Hui, A. N. N., & Chui, B. H.-T. (2018). Creative literacy activities promote positive reading attitude in children learning English as a foreign language. *Journal of Research in Reading*, 41(2), 278–289. <https://doi.org/10.1111/1467-9817.12096> [Wiley Online Library](#)
- Danaei, D., Jamali, H. R., Mansourian, Y., & Rastegarpour, H. (2020). Comparing reading comprehension between children reading augmented reality and print storybooks. *Computers & Education*, 153, 103900. <https://doi.org/10.1016/j.compedu.2020.103900> [ScienceDirect](#)
- Du, S., Sanmugam, M., & Mohd Barkhaya, N. M. (2024). The impact of augmented reality storybooks on children's reading comprehension and motivation. *International Journal of Interactive Mobile*

Technologies, 18(24), 100–114.
<https://doi.org/10.3991/ijim.v18i24.50793> Online Journals

Harefa, S. M., Mustapa, N., Kurniati, E., & Wardhani, W. D. L. (2025). The effect of reading one picture storybook each day children's language skills and character growth. *PAUDIA*, 14(4).
<https://doi.org/10.26877/paudia.v14i4.2268>

Hui, A. N. N., Chow, B. W.-Y., Chan, E. S. M., & Leung, M.-T. (2020). Reading picture books with elements of positive psychology for enhancing the learning of English as a second language in young children. *Frontiers in Psychology*, 10, 2899.
<https://doi.org/10.3389/fpsyg.2019.02899>

Jambak, F., & Eliza, D. (2020). The model development of picture story books Sumbang Kurenah through Minangkabau culture literacy for early childhood character building. *Proceedings of the International Conference of Early Childhood Education*.
<https://doi.org/10.2991/assehr.k.200715.008>

Kavanagh, L. (2019). Relations between children's reading motivation, activity and performance at the end of primary school. *Journal of Research in Reading*, 42(3–4), 562–582.
<https://doi.org/10.1111/1467-9817.12284> DOI

Law, E. L.-C., & Heintz, M. (2021). Augmented reality applications for K–12 education: A systematic review from the usability and user experience perspective. *International Journal of Child-Computer Interaction*, 30, 100321. <https://doi.org/10.1016/j.ijcci.2021.100321> ScienceDirect

Lestari, I. (2018). Developing wordless picture book to improve the storytelling ability of 5 to 6 years old children. *Jurnal Cakrawala Pendidikan*, 37(1). <https://doi.org/10.21831/cp.v37i1.13303> UNY Journal

Lestari, S., Sugianto, S., & Setiawan, D. (2020). The effectiveness of PBL assisted by digital storytelling media towards science literacy and critical thinking skills. *Journal of Primary Education*, 9(3), 329–341.
<https://doi.org/10.15294/jpe.v9i4.40495>

- Li, J. (2023). Application of augmented reality technology in the teaching of literacy at low learning stage. *Advances in Multimedia*, 2023, Article 8779575. <https://doi.org/10.1155/2023/8779575> DOI
- Maya, L., Sumarni, S., & Suseno, M. (2022). Digital storytelling to support young learners' English vocabulary development: A case study. *Jurnal Bahasa Lingua Scientia*, 14(1), 145–163. <https://doi.org/10.21274/ls.2022.14.1.145-163>
- Mukarromah, N., Lidyasari, A. T., & Pangestu, R. F. (2025). Enhancing elementary students' narrative writing skills through digital storytelling projects. *World Journal on Educational Technology: Current Issues*, 17(2). <https://doi.org/10.18844/wjet.v17i2.9345> Un-Pub
- Niland, A. (2023). Picture books, imagination and play: Pathways to positive reading identities for young children. *Education Sciences*, 13(5), 511. <https://doi.org/10.3390/educsci13050511> DOI
- Pan, Z., López, M. F., Li, C., & Liu, M. (2021). Introducing augmented reality in early childhood literacy learning. *Research in Learning Technology*, 29. <https://doi.org/10.25304/rlt.v29.2539> Research in Learning Technology
- Papen, U. (2020). Using picture books to develop critical visual literacy in primary schools: Challenges of a dialogic approach. *Literacy*, 54(1), 3–10. <https://doi.org/10.1111/lit.12197> Wiley Online Library
- Pratiwi, N. I., & Asyarotin, E. N. K. (2019). Peran taman bacaan masyarakat dalam meningkatkan budaya literasi. *Jurnal Kajian Informasi & Perpustakaan*, 7(2), 145–156. <https://doi.org/10.24198/jkip.v7i2.22603>
- Romadhianti, R. (2020). The strengthening of literation and character building through drawing stories. *Proceedings of the International Conference on Progressive Education (ICOPE 2019)*, 278–283. <https://doi.org/10.2991/assehr.k.200323.134>
- Sakr, A., & Abdullah, T. (2024). Virtual, augmented reality and learning analytics impact on learners, and educators: A systematic review.

Education and Information Technologies, 29, 19913–19962.
<https://doi.org/10.1007/s10639-024-12602-5>

Şimşek, B., & Direkçi, B. (2023). The effects of augmented reality storybooks on student's reading comprehension. *British Journal of Educational Technology*, 54(3), 754–772.
<https://doi.org/10.1111/bjet.13293> DOI

Şimşek, E. E. (2024). The effect of augmented reality storybooks on the story comprehension and retelling of preschool children. *Frontiers in Psychology*, 15, 1459264.
<https://doi.org/10.3389/fpsyg.2024.1459264> Frontiers

Van Elsen, J., Catrysse, L., & De Maeyer, S. (2024). The effect of interactive picturebook reading on problem-solving skills in preschool: A quasi-experiment. *Early Childhood Education Journal*, 52, 1471–1485. <https://doi.org/10.1007/s10643-023-01542-3> DOI

van der Pol, C. (2012). Reading picturebooks as literature: Four-to-six-year-old children and the development of literary competence. *Children's Literature in Education*, 43, 93–106.
<https://doi.org/10.1007/s10583-011-9149-9> Springer

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

Yulian, R., & Putri, M. E. (2023). Pengenalan literasi bahasa Inggris dengan digital storytelling berbasis STEAM bagi anak usia dini. *International Journal of Community Service Learning*, 7(4).
<https://doi.org/10.23887/ijcsl.v7i4.67497>