

Improving Digital Literacy Through a Canva Poster Design Workshop as a Means of Environmental Campaigning

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Keywords:	Canva; Digital Literacy; Environmental Campaign; Project- Based Learning.	Abstract. Digital literacy development in Islamic educational environments needs to move beyond access to digital devices toward the ability to produce purposeful digital content. This community service program aimed to develop selected digital literacy skills through a Canva poster design workshop for environmental campaigning grounded in Al-Islam and Kemuhammadiyah (AIK) values. The program involved 34 santri at the Muhammadiyah K.H. Ahmad Dahlan Orphanage in Surabaya, with 20 junior and senior high school santri participating in the Canva workshop and quantitative assessment. An initial assessment of these 20 participants showed that 12 (60%) owned personal smartphones, 5 (25%) had previous Canva experience, and 7 (35%) could produce posters with simple visual structures without substantial assistance. The community service method consisted of participatory training, demonstration, guided practice, mentoring, product development, and evaluation. Changes in selected Canva-related skills were documented through pre-test and post-test scores, while observations and poster review were used to document participation, production processes, and AIK representation. The combined mean score increased from 81.5 to 83.5, a 2-point change or approximately 2.45% relative increase. The junior high school group showed a clearer increase (66.7 to 73.3), while the senior high school group changed from 93.6 to 91.8. The results indicate a modest change in selected Canva-related skills rather than evidence of substantial improvement in overall digital literacy. The posters represented AIK values through messages concerning cleanliness, responsibility, social awareness, and the human role as khalifah in caring for the environment.	
Katakunci:	Canva; Literasi Digital; Kampanye Lingkungan;	Abstrak. Pengembangan literasi digital di lingkungan pendidikan berbasis keagamaan perlu diarahkan tidak hanya pada akses terhadap perangkat digital, tetapi juga pada kemampuan	

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menghasilkan konten digital yang bertujuan dan bertanggung jawab. Kegiatan pengabdian ini bertujuan mengembangkan keterampilan literasi digital tertentu melalui workshop desain poster menggunakan Canva untuk kampanye lingkungan berbasis nilai Al-Islam dan Kemuhammadiyah (AIK). Program melibatkan 34 santri di Panti Asuhan Muhammadiyah K.H. Ahmad Dahlan Surabaya, dengan 20 santri jenjang SMP dan SMA yang mengikuti workshop Canva sekaligus asesmen kuantitatif. Asesmen awal terhadap 20 peserta menunjukkan bahwa 12 peserta (60%) memiliki smartphone pribadi, 5 peserta (25%) pernah menggunakan Canva, dan 7 peserta (35%) sudah mampu membuat poster dengan struktur visual sederhana tanpa banyak bantuan. Metode pengabdian menggunakan pelatihan partisipatif, demonstrasi, praktik terbimbing, pendampingan, pengembangan produk, dan evaluasi. Perubahan pada keterampilan Canva yang dipilih didokumentasikan melalui nilai pretest dan posttest, sedangkan observasi dan telaah poster digunakan untuk mendokumentasikan partisipasi, proses produksi, dan representasi nilai AIK. Rerata gabungan meningkat dari 81,5 menjadi 83,5, yaitu sebesar 2 poin atau sekitar 2,45% secara relatif. Kelompok SMP menunjukkan peningkatan yang lebih jelas, dari 66,7 menjadi 73,3, sedangkan kelompok SMA berubah dari 93,6 menjadi 91,8. Hasil tersebut menunjukkan perubahan yang masih moderat pada keterampilan Canva yang diukur, bukan bukti peningkatan substansial pada keseluruhan literasi digital. Poster yang dihasilkan merepresentasikan nilai AIK melalui pesan tentang kebersihan, tanggung jawab, kepedulian sosial, dan peran manusia sebagai khalifah dalam menjaga lingkungan.

1 Introduction

The rapid expansion of digital communication has changed how young people access information, learn, express ideas, and participate in social life. In this context, digital literacy should not be reduced to the ability to operate a smartphone or open an application. It also involves the ability to access, understand, evaluate, create, and communicate information through digital media in ways that are purposeful and responsible. For educational communities, this distinction is important because access to devices does not automatically lead to the capacity to produce meaningful digital content. Recent community-service programs have therefore increasingly connected digital literacy training with practical content-production activities, including visual learning materials, posters, and other forms of digital communication (Basri et al.,

2023; Oktaviani & Setiawati, 2025; Rahayu et al., 2025). In Islamic education contexts, digital literacy is also increasingly discussed as an element of innovative learning that connects technology use with educational and religious purposes (Pratiwi et al., 2024).

A productive orientation is particularly relevant for adolescents in Islamic educational environments. Students in boarding or residential educational settings often encounter digital technology alongside structured religious, academic, and social activities. Digital literacy programs can consequently be designed to strengthen practical skills without separating them from the values already present in the learning environment. Hidayatullah et al. (2025) and Oktaviani and Setiawati (2025) show that participatory digital-literacy activities in Islamic boarding environments can combine technology use, critical engagement, and educational content production. Taufikin et al. (2025) similarly illustrate that digital production in Islamic educational settings can be connected with character-oriented learning when participants are actively involved in producing content rather than merely receiving information.

The specific problem addressed in this community service activity emerged from an initial assessment of 20 santri who were potential participants in the digital poster workshop. Twelve santri (60%) owned personal smartphones, while eight (40%) did not. Only five santri (25%) reported previous experience using Canva, whereas 15 (75%) had never used the application. In addition, seven santri (35%) could create posters with simple visual structures, while 13 (65%) still required assistance.

These findings indicate a gap between partial access to digital devices and practical experience in producing visual digital content. The data do not support a general conclusion about how participants usually used their devices, such as for entertainment; therefore, the present program focuses specifically on the documented gap in design experience and poster-production ability.

The partner setting also provides a relevant environmental context. The orphanage is located in a densely populated urban area, and initial observation identified the need for educational media that could communicate messages about cleanliness, waste reduction, personal

hygiene, and care for shared spaces. However, the initial assessment did not use a standardized instrument to quantify environmental awareness, waste-management conditions, or patterns of device use for entertainment and learning. These aspects are therefore treated as contextual observations rather than quantitative indicators, and the program does not claim to have measured changes in environmental awareness or behavior.

The characteristics of the partner community further shaped the design of the intervention. Santri participate in Qur'an recitation, tutoring, hadith studies, mentoring, and other routine activities. A community service activity for this setting consequently needs to be practical, clearly structured, and capable of producing a visible output within the available schedule. A purely lecture-based approach would provide limited opportunities for participants to demonstrate whether they can use digital tools productively. Conversely, a design workshop that focuses only on application features could become disconnected from the participants' daily context. The program therefore combines digital skills, environmental communication, and AIK values in one product-oriented activity. This design is consistent with community-service approaches that use demonstrations, guided practice, mentoring, and concrete products to support participants with varied levels of prior experience (Angelica et al., 2024; Mustakim et al., 2025; Permatasari et al., 2024).

Canva was selected as the production medium because it matched the documented needs and conditions of the partner group: most assessed participants had no previous Canva experience, many still needed assistance to produce a poster, and the activity required a practical tool that could be introduced and practiced within a limited schedule.

Canva was used as a medium for practicing selected digital visual-communication skills—arranging text, images, icons, colors, and layouts—rather than as a proxy for overall digital literacy. Previous training programs similarly report that direct demonstration, practice, and mentoring can support participants with different starting abilities (Angelica et al., 2024; Hurrain et al., 2026; Mustakim et al., 2025).

The environmental campaign theme was selected because posters can transform a relatively complex issue into a short, visible, and actionable message. Previous community-service activities have used poster production to connect environmental education with student creativity and communication. Oktavinoarti et al. (2026) used creative poster design to communicate proper waste disposal, while Rohmah et al. (2025) combined environmental education with persuasive poster production. Haka et al. (2024) also demonstrate that Canva-based visual learning materials can be linked to environmental awareness through contextual educational content. These studies support the use of visual production as a practical learning context, while the present program differs in its integration of productive digital literacy, environmental campaigning, and AIK values in a single workshop for santri.

AIK integration is another defining component of the program. The poster content was directed toward four values that could be identified in the products: cleanliness, responsibility, social awareness, and the human role as khalifah in caring for creation. These values were operationalized through campaign messages, for example appeals to maintain personal and shared cleanliness, take responsibility for waste and common spaces, invite peers to participate, and care for the environment as part of human responsibility. The assessment therefore focused on the representation of these values in poster content, not on internalization or long-term behavioral change.

The novelty of this community service activity lies in the integration of four elements within one product-oriented process: selected digital literacy skills, Canva-based poster production, environmental campaigning, and AIK values. Existing Canva training studies frequently emphasize technical design competence, creativity, or educational-media production (Permatasari et al., 2024; Setiawan et al., 2024; Romadhani et al., 2023). Environmental poster activities, meanwhile, commonly emphasize environmental education or awareness (Oktavinoarti et al., 2026; Rohmah et al., 2025).

The present program connects these strands by asking participants to formulate environmental messages, translate them into visual communication, use a digital design platform, and represent AIK values

in the resulting products. Technology is therefore positioned as a means of producing meaningful communication, while environmental and religious values provide the content and purpose of that production.

Based on the partner needs and the identified gap between device access and productive design experience, the objectives of the program were fourfold. First, the activity aimed to develop basic knowledge of digital visual communication. Second, it aimed to develop practical ability to use Canva to produce an environmental campaign poster. Third, it aimed to document changes in selected Canva-related skills through pre-test and post-test assessment among the 20 junior and senior high school participants who completed both measurements. Fourth, it aimed to document the representation of AIK values—cleanliness, responsibility, social awareness, and the human role as khalifah—in the poster content. These objectives intentionally distinguish measurable skill changes from participant responses and from longer-term environmental behavior, which was outside the scope of the available assessment design.

2 Method

This community service activity used a participatory training and mentoring method. Participants were actively involved in demonstrations, guided practice, peer assistance, poster production, and feedback. The activity was designed according to project-based learning (PjBL) principles, namely learning through a meaningful task that leads to a concrete product. PjBL was therefore used as an activity framework, not as a basis for a causal experimental claim.

The activity was conducted at the Muhammadiyah K.H. Ahmad Dahlan Orphanage in Surabaya. The overall program involved 34 santri from elementary, junior high, and senior high school levels. Fourteen elementary-level santri participated in an environmental cleanliness activity and were not included in the Canva skills assessment. Twenty junior and senior high school santri participated in the Canva poster workshop; nine were junior high school students and eleven were senior high school students. The quantitative assessment therefore applies only

to these 20 participants and should not be generalized to all 34 participants. This distinction is maintained throughout the article to avoid conflating the overall program participants with the subgroup that completed the Canva assessment.

The implementation followed seven sequential stages: (1) preparation and needs assessment, (2) coordination, (3) material presentation, (4) demonstration, (5) guided practice, (6) product development, and (7) evaluation. Preparation and needs assessment took place on 10 March 2026 through observation and initial interviews. Coordination with the partner was conducted on 5 May 2026 to confirm the schedule and participant targets. Material presentation and demonstration were conducted on 9 May 2026. Guided practice and product development were conducted on 13 May 2026. Evaluation activities were conducted on 20–21 May 2026. The sequence was designed so that the conceptual explanation preceded demonstration, demonstration preceded practice, and practice led to a concrete product that could be reviewed.

During the preparation stage, the team identified the participants' access to smartphones, previous Canva experience, and initial poster-production ability. The coordination stage then translated these findings into a feasible workshop plan. During material presentation, facilitators introduced selected aspects of digital literacy, visual communication, poster principles, environmental campaigning, and AIK values. The demonstration stage showed the basic Canva workflow, including template selection, text editing, color adjustment, use of images or icons, layout arrangement, and preparation of a short campaign message. Guided practice allowed participants to apply these steps while facilitators and peers provided assistance. Product development focused on completing and refining the poster so that the visual elements supported the intended message. Evaluation combined quantitative assessment and qualitative documentation.

Data were collected through four complementary sources. First, a pre-test and post-test were used to document changes in selected Canva-related skills among the 20 workshop participants. Second, observations were used to document participation, questions, use of

Canva features, peer assistance, and difficulties encountered during practice. Third, interviews and group discussions were used to capture participant experiences and responses to the training. Fourth, documentation and review of the final posters were used to identify the concrete products and the representation of environmental and AIK messages. This separation is important: participant responses were interpreted from observation, interviews, and discussions, whereas competency change was interpreted from the pre-test and post-test results. The poster review was used to document the product and its message content rather than to infer long-term value internalization.

Quantitative analysis was descriptive. The mean pre-test and post-test scores were compared for the junior high school group, the senior high school group, and the combined group. The percentage change in the combined mean was calculated as the difference between post-test and pre-test divided by the pre-test mean, multiplied by 100. Qualitative data from observations, interviews, and discussions were summarized according to recurring patterns related to participation, assistance needs, production difficulties, and responses to the activity. Poster products were reviewed for the presence of environmental themes and the representation of the identified AIK values. Because the activity had no control group and no longitudinal follow-up, the analysis does not claim causal effectiveness or sustained behavioral change.



Figure 1. Community Service Implementation Flowchart

The pre-test and post-test were used only for the 20 junior and senior high school participants who completed both measurements. The assessment focused on selected Canva-related competencies relevant to the workshop, such as basic operation and visual design tasks. It was not intended to measure every dimension of digital literacy. Participant responses were documented separately through observation, interviews, and group discussions, while poster products were examined as evidence of concrete digital production and AIK representation.

For quantitative results, group means were compared descriptively and the overall relative change was calculated from the difference between post-test and pre-test means. For qualitative evidence, recurring observations were summarized around participation, mentoring needs, peer assistance, and difficulties in producing the posters. Product review focused on whether the posters contained environmental messages and represented the selected AIK values. Because the program did not include a control group or long-term follow-up, the analysis is intentionally descriptive and does not establish causal effectiveness or sustained behavioral change.

3 Results

The program involved 34 santri, but the implementation was differentiated by activity track. Fourteen elementary-level santri joined environmental cleanliness activities, while 20 junior and senior high school santri joined the Canva poster workshop. The workshop began with an explanation of why digital tools can be used to produce useful messages, followed by an introduction to basic poster principles and environmental campaign content. Participants were then shown a step-by-step Canva demonstration before beginning their own designs. This structure enabled participants to see the relationship between a campaign message and its visual representation before working independently or with peers.

During practice, participants explored templates, adjusted colors, inserted images and icons, arranged text, and developed short environmental messages. Observations showed that participants asked questions when they encountered unfamiliar features and that peer assistance occurred naturally when one participant had difficulty with an application function or layout decision. The mentoring process was adjusted to the participants' starting abilities. Participants who needed repeated explanation received more direct guidance, while participants who were more familiar with digital design could continue refining their work. These observations describe participation and learning experiences; they are not treated as quantitative evidence of digital-literacy improvement. The orientation toward productive content creation is also consistent with training programs that connect Canva with digital creativity and communication skills (Walhidayat et al., 2026).

The environmental themes appearing in the products included personal hygiene, cleanliness of shared spaces, waste reduction, and maintaining tidiness. The poster task required participants to make several connected decisions: determine what environmental issue to communicate, formulate a concise message, select supporting visual elements, and arrange those elements so that the message remained readable. This made the poster a concrete output rather than merely an exercise in learning application features. The product also provided a visible record that participants had moved from receiving information to

producing a digital communication artifact. Similar product-oriented Canva activities have reported that participants can use templates and design elements to create posters and educational materials when demonstrations are followed by hands-on practice (Setiawan et al., 2024; Rahayu et al., 2025).

The quantitative assessment was limited to the 20 junior and senior high school participants who completed both pre-test and post-test. The results are presented by educational level to avoid masking differences in the starting point of each group. The junior high school group consisted of nine participants, while the senior high school group consisted of eleven participants. The assessment measured selected Canva-related skills rather than the full construct of digital literacy. Accordingly, the results should be read as an indicator of change in the assessed design-related competencies following participation in the workshop.

The junior high school group had a mean pre-test score of 66.7 and a post-test mean of 73.3, representing an increase of 6.6 points. Six of the nine participants improved, one remained stable, and two decreased. The pattern indicates that the group showed a clearer numerical change than the senior high school group, but the improvement was not uniform across all participants. The results are therefore better interpreted as a group-level descriptive change with individual variation rather than as evidence that every participant improved.

The senior high school group had a mean pre-test score of 93.6 and a post-test mean of 91.8, representing a decrease of 1.8 points. Two of the eleven participants improved, six remained stable, and three decreased. The relatively high pre-test mean indicates that this group entered the assessment with stronger performance on the selected skills. The small decrease should not automatically be interpreted as a negative effect of the workshop because the assessment captures performance at two points in time and the activity did not use a control group or a standardized longitudinal design.

Across the 20 assessed participants, the combined mean increased from 81.5 to 83.5. The difference was 2.0 points, corresponding to

approximately 2.45% relative to the pre-test mean. This is a modest change. It provides evidence of a limited shift in the selected assessed skills, but it does not justify a claim of substantial improvement in overall digital literacy. The distinction is especially important because digital literacy encompasses multiple dimensions beyond basic design operations, including information evaluation, responsible communication, and broader content-production abilities.

The final posters provided additional qualitative evidence of the activity's product orientation. The environmental messages were not treated as a direct measure of environmental behavior. Instead, they showed how participants translated the theme of environmental care into short digital messages. AIK values were represented through messages emphasizing cleanliness, responsibility for shared spaces, social encouragement to care for the environment, and the human responsibility associated with the concept of khalifah. These representations indicate that the value framework was incorporated into the products, while the available data do not establish whether the participants experienced long-term internalization of those values.

Several implementation challenges were identified. The first was variation in initial digital ability, which meant that some participants could follow the design steps quickly while others needed repeated demonstrations. The second was unequal device access, consistent with the initial finding that eight of the 20 assessed participants did not own personal smartphones. The third was limited activity time because the workshop had to fit within the partner's existing schedule. The team responded by using step-by-step demonstrations, providing examples, encouraging peer assistance, and giving direct mentoring. These strategies are consistent with other Canva training programs that identify differences in technical ability and device availability as practical challenges requiring close facilitation (Angelica et al., 2024; Mustakim et al., 2025).

Quantitative Changes in Selected Canva-Related Skills

Table 1. Changes in Selected Canva-Related Skills

Participant Group	n	Pre-Test Mean	Post-Test Mean	Change
Junior High School	9	66.7	73.3	+6.6
Senior High School	11	93.6	91.8	-1.8
Overall	20	81.5	83.5	+2.0

Products, AIK Representation, and Implementation Challenges

The posters produced during the workshop represented the most visible output of the program. Participants combined short campaign statements with images, icons, colors, and layouts to communicate environmental messages. The content focused on cleanliness, personal hygiene, waste reduction, and care for shared spaces. These products show that participants were able to move from a design demonstration toward the creation of a complete visual artifact.

The AIK dimension was represented through the content of the posters. Cleanliness appeared in messages encouraging hygienic personal and shared environments. Responsibility was represented through calls to take action and protect shared spaces. Social awareness was represented through invitations for others to participate in environmental care. The khalifah concept was represented through messages framing human beings as responsible for maintaining the environment. These observations concern the content of the products and do not establish internalization or long-term behavioral change.

Implementation challenges included differences in initial digital ability, unequal device access, and limited time. Participants with limited prior experience sometimes needed repeated demonstrations, particularly for layout arrangement and selection of visual elements. The team addressed these challenges through simplified explanations, examples, step-by-step demonstrations, peer assistance, and direct

mentoring. These strategies helped participants complete the planned poster task despite differences in their starting conditions.

4 Discussion

The main contribution of the activity should be understood as a practical opportunity for participants to move from digital access toward digital production. The initial assessment showed that 60% of the assessed participants owned smartphones, but only 25% had previous Canva experience and 65% still needed assistance in producing posters. This gap demonstrates why device ownership alone is an insufficient indicator of productive digital literacy. The workshop created a structured situation in which participants had to use digital tools to formulate, design, and communicate a message. This orientation is consistent with community-service literature emphasizing the development of digital literacy through concrete products rather than through application introductions alone (Basri et al., 2023; Permatasari et al., 2024).

The quantitative results provide a cautious but useful indication of change. The combined mean increased from 81.5 to 83.5, or 2 points. Because the relative change is approximately 2.45%, the result should be described as modest. This interpretation is also supported by the different patterns between educational levels. The junior high school group, which started at 66.7, increased to 73.3, whereas the senior high school group, which started at 93.6, changed to 91.8. The difference may partly reflect the amount of room available for numerical improvement, but the present design cannot determine the causes of the group differences. What can be stated with confidence is that the selected skills did not change uniformly across participants.

The findings also illustrate why pre-test and post-test scores should be interpreted together with the nature of the assessed skill. A participant who already performs at a high level may have less numerical room for improvement, while a participant with limited prior experience may show a larger gain after guided practice. This pattern appeared in the present activity, where the junior high school group showed a larger

positive change and the senior high school group began and remained at a high level despite a small decline. Similar community-service programs have shown that practical Canva training can improve participants' confidence or design output when participants have opportunities to practice repeatedly (Angelica et al., 2024; Mustakim et al., 2025). However, the present findings should not be generalized beyond the selected assessment or treated as proof of a universal training effect.

Canva functioned effectively as a practical learning medium because the workshop connected individual features with a meaningful communication purpose. Template selection, text editing, color adjustment, image selection, and layout arrangement were not taught as isolated technical operations. Each function was connected to the question of how an environmental message could be made clear and visually communicative. This is consistent with previous Canva-based training that emphasizes direct practice, product creation, and mentoring as mechanisms for supporting participants with different starting abilities (Hurrain et al., 2026; Setiawan et al., 2024). The present activity adds a contextual dimension by requiring the design process to respond to an environmental communication goal. Herwinsyah et al. (2024) likewise found that Canva-based learning can support the use of visual media within digital-literacy learning, reinforcing the relevance of the application as a practical medium rather than an end in itself.

The workshop also supports the argument that digital literacy training can be strengthened when participants become producers rather than only users of digital media. In the production process, participants had to select information relevant to the theme, decide what message should be emphasized, and organize verbal and visual elements. These decisions require more than knowing where a Canva button is located. They involve purposeful communication, selection, organization, and revision. Romadhani et al. (2023) and Rahayu et al. (2025) similarly report that Canva training can support practical design production and digital-literacy development when participants create concrete visual outputs. The present program therefore positions the

application as a means for practicing digital communication rather than as the final learning target.

The environmental campaign component strengthened the meaningfulness of the digital task. Participants were not asked to design an arbitrary poster; they had to communicate messages about issues that were connected to their surrounding environment. This contextualization made the digital production task socially purposeful. Environmental poster programs have similarly used creative visual production to connect environmental education with student participation (Oktavinoarti et al., 2026; Rohmah et al., 2025). Haka et al. (2024) further demonstrate that Canva-based digital materials can be used to communicate environmental content in an educational setting. In the present activity, the poster was simultaneously a learning product and a potential communication medium for environmental messages.

At the same time, the environmental dimension should be interpreted carefully. The workshop produced messages about cleanliness, hygiene, waste reduction, and care for shared spaces, but the evaluation did not include a longitudinal observation of actual environmental practices. Therefore, it would be inappropriate to conclude that the workshop changed participants' environmental behavior or permanently increased environmental awareness. The contribution that can be documented is narrower: participants were given a structured opportunity to formulate and communicate environmental messages through digital media. Future programs can extend this by assessing whether the messages are reused, shared, or translated into observable environmental actions after the workshop.

AIK integration provides a further layer of meaning to the activity. Cleanliness can be represented through messages encouraging personal and environmental hygiene; responsibility can be expressed through calls to take concrete care of shared spaces; social awareness can appear in invitations for peers to participate; and the khalifah concept can be communicated through messages emphasizing human responsibility to preserve creation. Saiyidah et al. (2025) describe khalifah as an ethical framework for environmental stewardship and emphasize the importance of participation and spiritually grounded environmental

education. The present activity operationalized that framework at the level of poster content. The value was therefore observable as a message theme, not assumed to have been internalized as a stable personal disposition.

This distinction is important for evaluating community-service outcomes. A workshop can create an environment that supports value-oriented communication, but claims about internalization require stronger evidence, such as validated instruments, repeated reflection, behavioral observation, or longitudinal follow-up. The present program did not use such instruments. Its more defensible contribution is that AIK values were embedded in the content-generation task and became visible in the posters. This approach is compatible with the broader literature on digital literacy in Islamic educational settings, which emphasizes the need to align digital competence with ethical and educational purposes (Hidayatullah et al., 2025; Oktaviani & Setiawati, 2025; Taufikin et al., 2025).

The participatory and mentoring approach was also significant because the participants entered the workshop with different levels of prior experience. A single explanation was unlikely to meet all needs. Demonstration made the process visible, guided practice allowed immediate application, peer assistance created additional support, and direct mentoring addressed individual difficulties. Previous Canva training programs identify differences in technical ability, device availability, and confidence as common implementation challenges (Angelica et al., 2024; Mustakim et al., 2025; Arien et al., 2025). The present activity similarly found that participants benefited from repeated explanations and practical assistance. This suggests that the design of a digital-literacy workshop should account for the process of learning, not only the software being taught.

The product-oriented structure also has implications for future community-service design. A poster can be reviewed after the workshop, reused for educational displays, or adapted for digital distribution. Such a product creates a more visible form of community-service output than a lecture alone. However, product completion should not be equated with mastery. A participant may successfully use a template while still

needing development in message evaluation, visual hierarchy, source selection, accessibility, or responsible digital communication. Future programs can therefore expand the assessment criteria to include message clarity, relevance of information, visual hierarchy, originality, ethical use of images, and ability to explain design choices. This would provide a more comprehensive picture of digital content-production competence.

The modest overall score change also suggests that the duration of the workshop may be an important factor. The activity had to fit within the partner's established schedule, so participants had limited time to move from introduction to production and revision. A longer mentoring period could allow participants to produce a first draft, receive structured feedback, revise the design, and then publish or present the final product. Repeated practice would also make it possible to distinguish short-term familiarity with the application from more stable skill development. This recommendation is consistent with training programs that use repeated mentoring rather than a single exposure to application features (Angelica et al., 2024; Rahayu et al., 2025).

The results should also be understood in relation to previous PjBL and visual-media research. Lestari and Lubis (2023) found that project-based learning with visual media can support critical-thinking development because participants connect learning with concrete tasks and real situations. The present program similarly required participants to transform an environmental issue into a visual product. Nevertheless, the present activity is a community service program rather than a controlled classroom experiment. It therefore does not claim the same type of causal effect. The relevance of the PjBL perspective lies in the design principle of learning through a meaningful product, while the outcome claims remain limited to the descriptive evidence collected during the workshop.

From a community-engagement perspective, the program demonstrates a practical way to connect digital skills with the partner's existing educational and value context. The workshop did not require the partner community to abandon its established religious and mentoring activities. Instead, the digital task was connected with a familiar moral

theme—care for cleanliness and the environment—and converted into a form of visual communication. This integration may help digital literacy feel more relevant because the technology is introduced through a purpose that participants can recognize. Similar work in Islamic educational settings indicates that digital literacy initiatives can be strengthened when technological skills are connected with educational, ethical, and character-oriented goals (Oktaviani & Setiawati, 2025; Taufikin et al., 2025).

The main limitation is the absence of a control group and longitudinal follow-up. The pre-test and post-test comparison shows what happened to the assessed group across the activity period, but it cannot isolate the contribution of the workshop from other influences. The second limitation is the scope of the assessment: the measured indicators represent selected Canva-related skills, not the full range of digital literacy. The third limitation is the difference in activity tracks among the 34 participants, which means the quantitative findings apply only to the 20 junior and senior high school participants. The fourth limitation is that environmental behavior and AIK internalization were not measured longitudinally. These limitations should be retained explicitly so that the findings are not overstated.

Despite these limitations, the program provides a useful model for future community-service activities that seek to develop productive digital literacy in a value-based environment. The model can be strengthened by conducting a more systematic baseline assessment, using a standardized rubric for poster quality, adding repeated practice sessions, and conducting follow-up assessments several weeks or months after the workshop. Future activities can also include digital ethics, source verification, copyright-aware image selection, accessibility, and responsible publication. If resources permit, subsequent programs could compare different training approaches or use a larger participant group. Such improvements would make it possible to examine not only whether participants can create a poster, but also whether they can consistently produce accurate, ethical, purposeful, and socially useful digital content.

5 Conclusion

The Canva poster workshop gave 34 santri practical experience in digital content creation and environmental messaging based on AIK values. Of these, 20 santri completed the Canva assessment. Through demonstrations, guided practice, product development, and evaluation, participants developed selected Canva skills. The mean score increased from 81.5 to 83.5 (2.45%), with improvement among junior high school santri from 66.7 to 73.3, while the senior high school group decreased from 93.6 to 91.8. The results should be interpreted cautiously because of the small sample, limited indicators, and absence of a control group and follow-up assessment. The environmental posters reflected AIK values such as cleanliness, responsibility, social awareness, and environmental stewardship. Future programs should provide longer mentoring, broader digital-literacy indicators, clear poster assessment rubrics, and follow-up evaluations.

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