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Leisure Activities to Reduce Screen Time

Kegiatan Pengisi Waktu Luang untuk Mengurangi Aktivitas Layar

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Abstract

This community service initiative was developed in response to the rising prevalence of screen-based activities among children during school holidays, which adversely affect their physical, cognitive, and social development. The program targeted Madrasah Ibtidaiyah students in Sleman, Yogyakarta, aiming to provide productive leisure-time alternatives. A participatory learning approach was employed, integrating activities such as Qur'an memorization (tahfidz), Arabic language, numeracy, literacy, traditional games, sports, arts, and simple science experiments. University students acted as facilitators, while parents participated through organizing committees, ensuring collective ownership of the program. The results indicated active student engagement, significant reduction in screen time, and enhanced social interaction, literacy, and learning motivation. Beyond reducing dependence on digital devices, the program contributed to empowering parents in supporting their children's growth. It is recommended that similar initiatives be sustained during school holidays, with broader variations such as educational visits and extended sessions, to maximize long-term educational and developmental benefits.

Keywords*: community service, leisure-time activities, parental empowerment, participatory learning, screen time reduction, student engagement*

Abstrak

This community engagement programme was initiated in response to the increasing screen-based activities among children during school holidays, which may adversely affect their physical, cognitive, and social well-being. Accordingly, the programme was implemented for students of a Madrasah Ibtidaiyah in Sleman, Yogyakarta, with the aim of enabling them to spend their leisure time productively. The method employed was participatory learning through activities such as Qur'an memorisation (tahfidz), Arabic language learning, numeracy, literacy, traditional games, sports, arts, and science experiments. The programme involved university student facilitators and parental participation through committee roles. The results indicate that students were actively engaged in various activities, experienced a reduction in screen time, and showed improvements in social interaction, literacy, and learning interest. The implications of this programme extend beyond reducing children's dependence on digital devices; it also strengthens parental empowerment in supporting and accompanying children's development. It is recommended that similar activities be conducted regularly during school holidays with structured planning, adequate facilitation, and active collaboration among schools, parents, and community stakeholders.

Keywords: *community service, leisure-time activities, parental empowerment, participatory learning, screen time reduction, student engagement*

1. PENDAHULUAN

During school holidays, students have considerably more leisure time. This may have negative consequences if children spend much of this time engaging in screen-based activities. Increased screen time among children aged 5–12 years may reduce their level of physical activity, as reflected in the number of steps taken while engaging in screen-based activities (Bratteteig et al., 2024). Similarly, a study by Staiano et al., (2015) involving elementary school-aged children through adolescents, found that children watched television for longer periods during school holidays than during the school term, with an average of 3.6 hours per day compared with 3.1 hours per day. The study also showed that children who did not participate in holiday

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programmes tended to be less physically active and had poorer breakfast habits. The study therefore recommended the provision of structured physical activities during holidays, as well as strategies to reduce screen-based activities by integrating physical activity into screen-based entertainment. These findings are consistent with the needs assessment conducted among participants in this community engagement programme regarding screen-based activities, as shown in Figure 1.

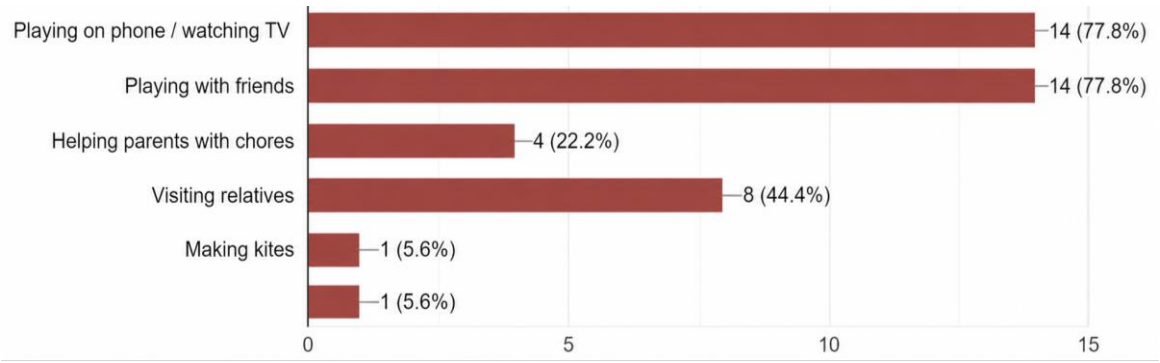

Figure 1. Analysis of participants' problems regarding the use of school holiday time

Another study on screen-based activities among preadolescents found a non-linear relationship between screen exposure and auditory processing. Moderate screen exposure was associated with better auditory processing, whereas high exposure was linked to deficits in temporal resolution, speech perception, binaural integration, and working memory. These findings support the Goldilocks Hypothesis, which suggests that excessive screen exposure may be harmful, while very limited exposure may not fully optimise the potential benefits of digital media. Prolonged exposure, particularly for more than three hours per day, may negatively affect auditory processing and working memory (Jain et al., 2025).

Another study demonstrating that leisure time spent accessing mobile phones may reduce children's physical activity was conducted by Auhuber et al., (2019). Based on data from 1,449 respondents aged 10–18 years, the study found that more than half of the respondents spent over two hours per day using screen-based media. Girls tended to use mobile phones more frequently, whereas boys were more likely to play digital games. Furthermore, the intercorrelation analysis showed that high media use was negatively associated with physical activity and outdoor activities. By contrast, engagement in physical activity was positively correlated with the frequency of meeting friends and the amount of time spent outdoors. Older adolescents also showed higher levels of computer and mobile phone use than younger age groups. These findings highlight the need for early intervention through families and schools to limit media use while encouraging participation in sports, outdoor activities, and arts-based activities in order to maintain balanced child development. Overall, the evidence suggests that higher levels of mobile phone use are associated with lower involvement in physical activity.

Physical activities, including sports, are beneficial for helping children use their leisure time productively. A meta-analysis of 64 studies from 47 countries found that children's preferred activities varied by region: children in the Americas tended to choose team sports such as football, basketball, and baseball; those in the Western Pacific region preferred lifelong activities such as running, swimming, and cycling; while children in Europe showed a relatively balanced pattern between team sports and lifelong activities (Hulteen et al., 2017). Further evidence from a literature review of 14 longitudinal studies involving 34,388 observations across five countries showed that leisure-time physical activity during adolescence is associated with health outcomes in adulthood. Running and endurance sports were consistently linked to higher physical activity levels in adulthood, while participation in team sports was associated with a lower risk of

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depression, panic disorder, and agoraphobia. Individual sports, such as gymnastics and martial arts, were also associated with a reduced risk of social anxiety (Miller et al., 2024).

The programme was implemented for Madrasah Ibtidaiyah students, equivalent to elementary school students, in Sleman, Yogyakarta. Most parents came from lower-middle economic and educational backgrounds. Based on the authors' observations and interviews with members of the parents' association committee, parents needed and supported a structured holiday programme because they faced difficulties in facilitating productive activities for their children. Consequently, children often spent their holidays using mobile phones to play games or watch YouTube. This situation is illustrated in Figure 2.

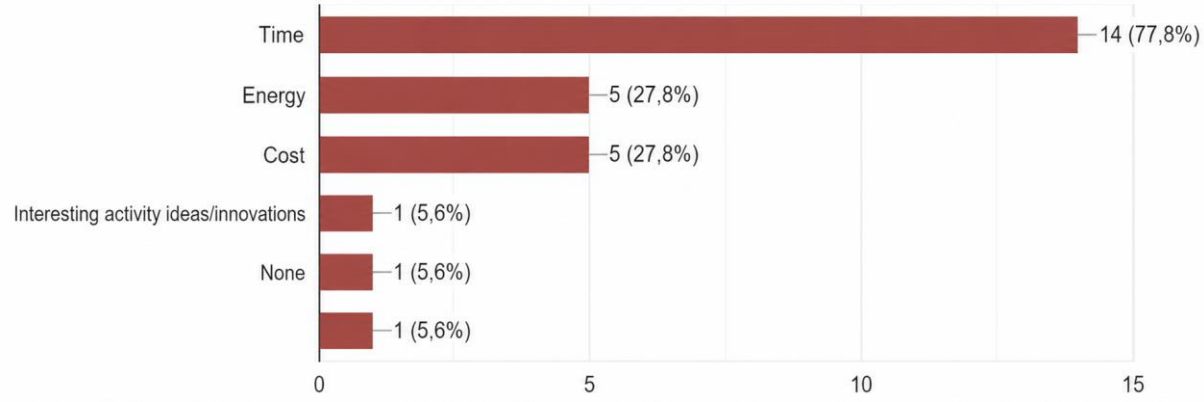

Figure 2. Analysis of parents' problems regarding challenges in supervising children during school holidays

Parental support for this programme represents a positive potential for ensuring the successful implementation of all programme activities. The authors collaborated with parents as a form of community empowerment. Parents were expected to support the programme by: (1) serving as committee members to help organise and implement the activities; (2) providing a venue for the activities; and (3) motivating children to participate fully in all programme activities

The problem addressed in this community engagement programme was the need for a structured programme to fill children's leisure time during school holidays as an effort to reduce screen-based activities and enable children to use their free time more productively.

The objectives of this community engagement programme were: (1) to encourage active participation among the student participants; (2) to involve parents or guardians actively in community empowerment through committee participation; and (3) to enable both participants and parents or guardians to experience the positive benefits of the programme, particularly in reducing the duration of screen-based activities.

2. METHOD

The implementation method used in this community engagement programme was a participatory approach. Participatory learning is an approach that emphasises the active involvement of the community in all stages of the process, from problem identification, planning, and implementation to evaluation. Through this approach, the community is positioned as the subject, rather than the object, of learning (Pretty & Guijt, 2002). Participants were actively involved in each programme activity, while the programme initiators were assisted by facilitators.

The participants were Madrasah Ibtidaiyah students, equivalent to elementary school students, in Sleman, Yogyakarta. The organising committee consisted of the students' parents or guardians, while the facilitators were Psychology students from Universitas Islam Indonesia.

Prior to the implementation of the community engagement activities, the programme initiators developed an action plan comprising the following stages. First, a needs assessment was

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conducted. The participants' need for positive activities was aligned with the learning activities being carried out at school; however, in this programme, the activities were delivered using more kinesthetic and participatory methods. Second, the programme activities were formulated by the community engagement team with the assistance of facilitators and a committee established by the community. This stage included determining the location, schedule, and infrastructure required during the activities. Third, the community engagement activities were implemented according to the agreed plan. Fourth, an evaluation was conducted involving the students' parents or guardians and the facilitators.

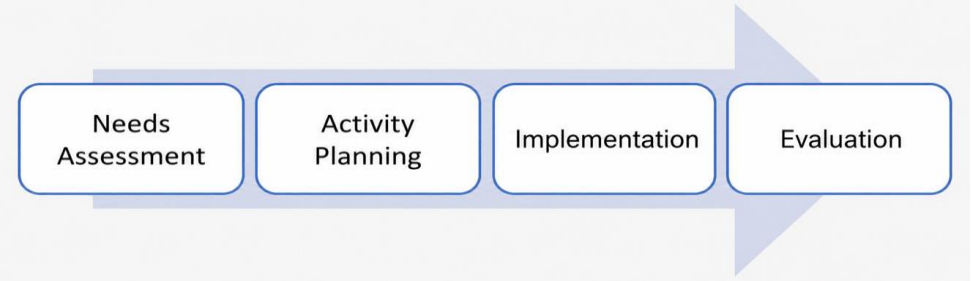

Figure 3. Stages of programme implementation

The achievements of this programme include the active involvement of participants in each community engagement activity and a reduction in screen-based activity during the school holiday period.

3. RESULTS AND DISCUSSION

The implementation of the community engagement programme is presented in Table 1.

Table 1. Community Engagement Programme Activities

No	Date of Implementation and Location	Facilitator's Name	Activity Name	Activity Description	Achievement of Objectives
1	Saturday, 28 June 2025	Yurna Hafizah	*Tahfidz*	Memorising short surahs from the Qur'an in a classical group-learning format	16 participants attended and were actively involved
2	Saturday, 5 July 2025	Rofa Hiyatal Ais	Arabic Language	Tracing Arabic letter sequences, colouring calligraphy, and singing songs about body movements in Arabic	15 participants attended and were actively involved
3	Monday, 7 July 2025	Salma Nur Abillaa	Traditional Games	Playing *Benthik/Gatrik*, *Gobak Sodor*, and *Dhingklik Oglak Aglik*	14 participants attended and were actively involved

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4	Tuesday, 8 July 2025	Yurna Hafizah	Numeracy and Arts	Making number balloon fans, dancing, and singing "Yamko Rambe Yamko"	17 participants attended and were actively involved
5	Wednesday, 9 July 2025	Amelia Alfadillah	Reading Literacy	Reading and retelling fairy-tale books	11 participants attended and were actively involved
6	Thursday, 10 July 2025	Afra Udkhi Aulia dan Aqila Putri Mediantari	Science	Making a balloon-powered car and a volcanic eruption experiment	15 participants attended and were actively involved
7	Friday, 11 July 2025	Afra Udkhi Aulia	Sports 1	Playing football and flying kites	20 participants attended and were actively involved
8	Saturday, 19 July 2025	-	Sports 2	Swimming	18 participants attended and were actively involved

Based on the activities described above, physical activity was incorporated into traditional games, sports, and ice-breaking activities conducted in each session. Physical activities can improve motor coordination and enhance group interaction. This is supported by Kliziene et al. (2021), who found that physical activity programmes had positive effects on the emotional well-being of elementary school children aged 6–7 and 8–9 years across three main dimensions: somatic anxiety, personal anxiety, and social anxiety. Traditional games, in particular, can foster greater independence while allowing children to experiment with creativity and innovative ideas. Children need both intellectual and physical forms of play. Play promotes physical fitness and helps children become physically stronger. Outdoor traditional games also play an important role in children's cognitive and social development. Such games provide a unique and enriching means for children to interact with one another and develop cognitive and social skills (Raval, 2023).

Reading literacy, numeracy, and *tahfidz* activities, namely Qur'anic memorisation, can enhance students' understanding. Previous research has shown that early literacy skills have a stronger influence on fourth-grade mathematics achievement than early numeracy skills. Furthermore, both early literacy and numeracy contribute to building students' confidence in their mathematical abilities, which is a strong predictor of mathematics achievement (Chang, 2023). In the reading literacy activity, participants were asked to retell the contents of fairy tales they had read. In this learning context, the retelling method can improve students' comprehension, as reflected in learning achievement scores (Irma, 2018). he positive benefits of *tahfidz* activities are also consistent with studies showing that Qur'anic memorisation not only improves students' memorisation skills but also contributes to character formation, particularly discipline, strengthens learning motivation, and improves academic achievement (Effendi et al., 2025). The arts activities in this programme included Arabic calligraphy and singing the regional song "Yamko Rambe Yamko". A systematic review of arts-based activities found evidence that engagement in the arts can improve individuals' psychosocial well-being (Javadian et al., 2025).

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Science activities can also enhance students' potential. In this programme, science activities were conducted through hands-on experiments, guided by instructions and demonstrations from the facilitators. This finding is supported by Suryani et al. (2025) who reported that their community engagement programme increased students' interest in and literacy of science by encouraging them to learn through play, providing teaching aids for experiments, and supplying illustrated books on light.

The strengths of this community engagement programme include the following: (1) it facilitated the development of students' physical, cognitive, emotional, social, and spiritual potential; (2) it was implemented during the school holiday period, thereby providing productive activities to fill students' leisure time; (3) it helped reduce children's engagement in screen-based activities during school holidays; (4) the programme activities were aligned with school learning activities; (5) the facilitators were Psychology students who had received prior training; and (6) a community-based committee was established as part of community empowerment efforts to foster a sense of programme ownership. As a result, technical aspects of implementation, such as providing the activity venue, disseminating announcements through participant forums, preparing refreshments for parents or guardians waiting at the activity site, and documenting the activities, were supported by the community committee.

The limitations of this community engagement programme include the fact that attendance was not optimal in every activity. Although the total number of registered participants was 23, not all participants attended each session. This was due to several factors, such as students' preference to play with friends in their neighbourhood or the considerable distance between their homes and the activity location.

The challenges encountered during programme implementation included situations in which participants appeared less actively engaged. In such circumstances, the facilitators needed to take a more active role by preparing ice-breaking activities to re-engage participants and help them refocus on the objectives of the session. In general, however, all activities were carried out smoothly, in an orderly manner, and with relatively good cooperation from participants in engaging with the programme activities. The role of parents or guardians was also highly significant in motivating students to attend each activity.

This programme has provided benefits to the community by organising activities for students to fill their leisure time during the school holiday period. The questionnaire results indicate that the programme helped reduce students' engagement in screen-based activities during the holidays, as shown in Figure 4. Although this change was short-term, parents' understanding that positive holiday activities can reduce children's screen-based activities may support longer-term change. This can be achieved when parents or guardians plan structured activities within the family or community context.

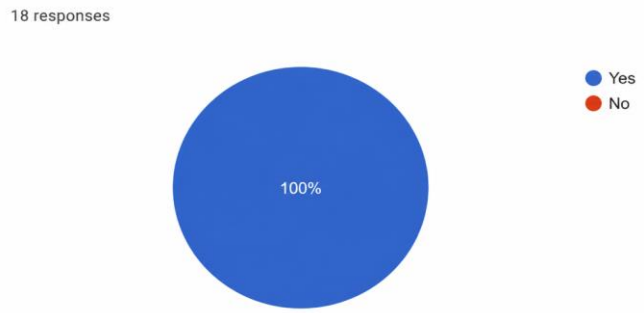

Figure 4. Participants' evaluation of the benefits of the community engagement programme

The qualitative programme evaluation involved 18 respondents who completed the evaluation form. The results indicate that parents or guardians perceived several benefits from

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the programme, including reducing children's dependence on gadgets or screen-based activities and providing them with positive experiences, such as socialising with peers, becoming familiar with traditional games, and gaining knowledge beyond the school context. Children became more confident in exploring new activities with others, while parents or caregivers felt supported because their children had meaningful activities and were not focused solely on gadgets. Parents also felt assisted because their children were accompanied during the school holiday period.

The results of this community engagement programme, which was designed to fill children's leisure time during school holidays, demonstrate a significant contribution to reducing screen-based activities. This is consistent with the findings of Bratteteig et al. (2024) which emphasise that high levels of screen-based activity among children are associated with lower levels of physical activity; therefore, structured interventions are needed to achieve a balanced state of child health. Activities such as sports, traditional games, literacy activities, and science experiments, as implemented in this programme, were found to increase children's active engagement while reducing their dependence on gadgets. This is supported by the evaluation results presented in Figure 5, which show that 94.4% of the 18 parent or guardian respondents stated that the programme helped reduce students' screen-based activities.

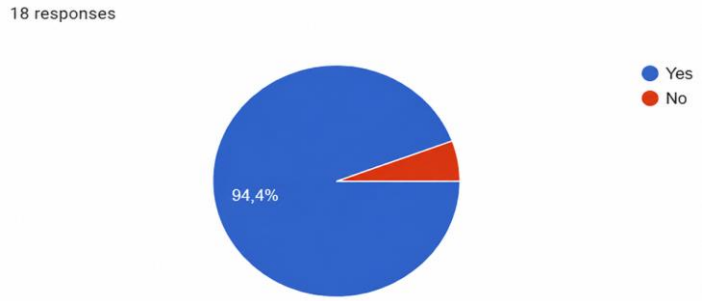

Figure 5. Evaluation results showing that the community engagement programme reduced screen-based activities

There were several suggestions and comments from participants regarding this community engagement programme. In general, the feedback was constructive, with an emphasis on improving the quality of activities during the school holiday period. Most participants considered the programme to be positive, well-conceptualised, and enjoyable. However, they expressed the hope that future activities would involve broader exploration of the surrounding environment so that children could gain more varied experiences. Several suggestions included increasing the variety of activities, such as drawing or visits to educational museums; extending the duration of the activities to make them more effective; and holding the programme at the beginning of the school holiday rather than at the end, so that children could participate more optimally. Participants also highlighted the importance of more active facilitators in creating a lively atmosphere and encouraging children to be more enthusiastic. At the same time, participants also expressed appreciation for the programme, noting that it was already well implemented, with adequate facilities, allowing participants to attend and take part in the activities comfortably. Overall, the feedback indicates an expectation that this programme can continue to be implemented regularly, with several improvements, so that its benefits for both children and parents can be further enhanced. Opportunities for programme development include providing tutoring sessions interspersed with play-based activities during Saturday school holidays. Such tutoring could also be organised in the form of competitions, such as quiz contests, with prizes provided for participants as a way to motivate children to engage in positive activities during their holidays.

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Figure 6. *Tahfidz* activity


Figure 7. Arabic language activity


Figure 8. Traditional games


Figure 9. Number balloon fan activity


Figure 10. Literacy activity


Figure 11. Science activity


Figure 12. Sports Activity


Figure 13. Sports Activity

4. CONCLUSIONS

The conclusions of this community engagement programme are as follows:

1. Participants were actively involved in each programme activity.
2. The programme successfully reduced the duration of screen-based activities during the school holiday period.
3. Parents or guardians felt supported because their children had positive activities during the holidays. They were also able to participate actively in the organising committee, thereby promoting community empowerment.

The strengths of this community engagement programme are as follows:

1. It facilitated students' physical, cognitive, social, emotional, and spiritual development.

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2. It was implemented during the school holiday period, enabling students to use their leisure time productively.
3. It reduced children's dependence on digital devices.
4. It was aligned with school learning materials and guided by trained university student facilitators.
5. The involvement of a community-based committee strengthened a sense of programme ownership.

The limitations of this community engagement programme are as follows:

1. Participant attendance was not always optimal, with only 11–20 of the total 23 participants attending each session.
2. In several sessions, some students appeared less actively engaged, requiring facilitators to provide ice-breaking activities to help them refocus.

Future programme development may include the following:

1. Increasing the variety of activities, such as visits to educational museums, visual arts activities, or quiz competitions.
2. Extending the duration of the activities and implementing the programme from the beginning of the school holiday period to optimise participation.
3. Integrating tutoring sessions with play-based activities to sustain the programme's benefits.
4. Expanding participant coverage and strengthening collaboration among schools, parents, and the wider community.

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