

Implementation of Service Learning in Early Childhood Health, Safety, and Nutrition Education at the Child Growth and Development Centre of UIN Alauddin Makassar

Implementasi Service Learning dalam Edukasi Kesehatan, Keselamatan, dan Gizi Anak Usia Dini di Pusat Tumbuh Kembang Anak UIN Alauddin Makassar

Jamilah^{1*)}, Eka Damayanti²⁾, Sofyan³⁾, Ahmad Farham Majid⁴⁾

^{1,2,3,4)}Universitas Islam Negeri Alauddin Makassar

jamilah@uin-alauddin.ac.id^{1*)}, eka.damayanti@uin-alauddin.ac.id²⁾, sofyan.ramli@uin-alauddin.ac.id³⁾, ahmad.farham@uin-alauddin.ac.id⁴⁾

Abstract

Ensuring health, safety, and adequate nutrition is essential for optimal early childhood development. This community service program aimed to strengthen children's and caregivers' understanding of healthy behavior, everyday safety, and balanced nutrition through a service-learning approach at the UIN Alauddin Makassar Child Growth and Development Center. Conducted from May to June 2025, the program involved 20 undergraduate students, 2 caregivers, and 15 children. It comprised three stages: pre-implementation, implementation, and post-implementation. Educational activities included posters, storytelling, guided meal practice, personal-hygiene checks, and height and weight measurement. Outcomes were evaluated qualitatively through observation of participants' responses, children's ability to retell key messages, and reflection involving students, lecturers, and caregivers. The children participated actively and were able to restate the main messages in age-appropriate language. Caregivers also gained practical guidance for reinforcing healthy, safe, and nutritionally balanced routines. The program demonstrates that service learning can connect student learning with community needs; however, changes in knowledge and behavior were not measured using standardized instruments.

Keywords: *service learning, early childhood, child health, child safety, child nutrition*

Abstrak

Pemenuhan kesehatan, keselamatan, dan gizi merupakan prasyarat penting bagi tumbuh kembang anak usia dini. Kegiatan pengabdian kepada masyarakat ini bertujuan meningkatkan pemahaman anak dan pengasuh mengenai perilaku hidup sehat, keselamatan sehari-hari, dan gizi seimbang melalui pendekatan service learning di Pusat Tumbuh Kembang Anak UIN Alauddin Makassar. Program dilaksanakan pada Mei-Juni 2025 dan melibatkan 20 mahasiswa, 2 pengasuh, serta 15 anak. Kegiatan mencakup tiga tahap, yaitu pra-implementasi, implementasi, dan pasca-implementasi. Edukasi diberikan melalui poster, bercerita, praktik makan terpandu, pemeriksaan kebersihan diri, serta pengukuran tinggi dan berat badan. Evaluasi dilakukan secara kualitatif melalui observasi respons dan kemampuan anak menceritakan kembali pesan edukasi, disertai refleksi mahasiswa, dosen, dan pengasuh. Hasil menunjukkan bahwa anak terlibat aktif dan mampu mengungkapkan kembali pesan utama dengan bahasa sederhana. Pengasuh juga memperoleh panduan praktis untuk memperkuat pembiasaan sehat, aman, dan bergizi dalam rutinitas pengasuhan. Program ini menunjukkan bahwa service learning dapat menghubungkan pembelajaran mahasiswa dengan kebutuhan nyata komunitas, meskipun

pengukuran perubahan pengetahuan dan perilaku belum menggunakan instrumen terstandar.

Kata Kunci: service learning, anak usia dini, kesehatan, keselamatan, gizi

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INTRODUCTION

Childcare centers provide care, education, and developmentally appropriate stimulation when parents or primary caregivers are unavailable. Beyond daily supervision, high-quality childcare environments support children's physical, cognitive, social, and emotional development through responsive interaction, structured play, and safe routines (Black et al., 2017; Britto et al., 2017; OECD, 2021). The quality of the physical and social environment is especially important because young children learn through direct experience and depend on adults to organize conditions that protect their well-being (Tamblyn et al., 2023; World Health Organization et al., 2018).

A childcare center therefore needs safe and comfortable spaces, adequate ventilation and lighting, age-appropriate equipment, qualified caregivers, appropriate supervision, sanitation, food safety, and nutritionally balanced meals. These elements are interrelated: safe facilities reduce preventable risks, responsive caregivers strengthen children's sense of security, and consistent hygiene and nutrition practices support healthy growth (UNICEF, 2020; World Health Organization [WHO], 2020). Evidence also indicates that handwashing promotion can reduce diarrhoeal episodes in childcare and community settings, while safety education is more useful when combined with practical environmental supports (Ejemot-Nwadiaro et al., 2021; Kendrick et al., 2012). Educational programs in childcare settings should therefore translate health, nutrition, and safety messages into concrete routines that children can observe, practice, and repeat.

The UIN Alauddin Makassar Child Growth and Development Center was established in 2017 by the Early Childhood Islamic Education Program, Faculty of Tarbiyah and Teacher Training. Initially, it functioned as a practicum setting for students and served children of university lecturers and staff; it subsequently became accessible to the wider community. Preliminary observation by the service team indicated a need for practical, child-friendly education on personal hygiene, safe play, and balanced nutrition. The program therefore engaged lecturers and students as facilitators, while caregivers and children participated as community partners.

The program used service learning, an approach that integrates meaningful community engagement with academic learning and structured reflection (Bringle & Hatcher, 1996; Jacoby, 2015). Service learning differs from one-way outreach because students are expected to respond to identified community needs, apply disciplinary knowledge, collaborate with community partners, and reflect on the experience. Systematic reviews describe reciprocity, curricular integration, community partnership,

and reflection as central features of effective service-learning practice (Salam et al., 2019). Reflection is especially important because it helps participants connect service activities with learning outcomes and revise actions based on community feedback (Kawai, 2021).

In the present program, service learning was operationalized through needs identification, collaborative planning with caregivers, direct educational activities, and post-activity reflection. This design positioned the childcare center not merely as a recipient of information but as a partner in determining relevant messages and feasible routines. Such partnership is consistent with the civic and sustainability orientation of service learning, which emphasizes reciprocity, participation, and benefits for both students and communities (Aramburuzabala & Cerrillo, 2023). Evidence syntheses also show that well-designed service learning can support students' academic, personal, social, and civic development, although outcomes depend on program quality and the use of meaningful reflection (Celio et al., 2011; Yorio & Ye, 2012).

Posters, storytelling, guided practice, and demonstrations were selected because young children benefit from concrete, visual, interactive, and repetitive learning experiences. Posters can provide continuing visual cues, although their effectiveness depends on readability, placement, and facilitation (Hasanica et al., 2020). Storytelling has been used successfully to strengthen health-related understanding among preschool children, including oral-hygiene education (Shruti et al., 2021). Guided meal practice was also relevant because preschool nutrition interventions are strengthened by direct food exposure, sensory learning, adult modeling, and repeated opportunities to practice healthy choices (Mikkelsen et al., 2014; Nekitsing et al., 2018). Based on these considerations, the activity aimed to educate children and caregivers about health, safety, and nutrition while providing students with a structured service-learning experience.

METHODS

This community service activity was conducted from May to June 2025 at the Child Growth and Development Center, Faculty of Tarbiyah and Teacher Training, UIN Alauddin Makassar. The service team consisted of lecturers and 20 undergraduate students enrolled in the 2024/2025 academic year. Community participants comprised 2 caregivers and 15 children attending the center.

The program followed three service-learning stages: pre-implementation, implementation, and post-implementation (Jamilah et al., 2021; Ridwan et al., 2016). During pre-implementation, the team observed the childcare setting, discussed needs with caregivers, selected priority topics, prepared educational materials, and designed child-friendly activities. Posters and storytelling materials addressed personal hygiene, safe play, emotional well-being, and balanced nutrition. Lecturers and students then conducted an initial reflection to examine the relevance and feasibility of the plan.

During implementation, students facilitated poster-based storytelling, guided meal practice, personal-hygiene checks, and measurement of children's height and weight. Caregivers participated in the activities so that the messages could be reinforced in daily routines. Lecturers monitored the process, supported student facilitators, and ensured that activities remained appropriate for young children. Height and weight were recorded

only as descriptive growth indicators; the program did not calculate z-scores or classify nutritional status using the WHO Child Growth Standards (WHO, 2006).

During post-implementation, the team evaluated the program qualitatively through direct observation of children's participation, responses to questions, and ability to retell the educational messages. Caregiver responses and reflections from students and lecturers were also documented. No pretest-posttest, validated knowledge scale, or behavioral follow-up was used; accordingly, the findings are interpreted as evidence of engagement and immediate understanding rather than proof of sustained behavioral change.

RESULTS AND DISCUSSION

Pre-implementation

During the pre-implementation stage, lecturers and students observed the childcare environment and discussed priority needs with caregivers. The team identified three interconnected themes: personal health and hygiene, safety in daily play, and balanced nutrition. Students then prepared posters, basic health-check procedures, healthy-food introduction activities, and storytelling scenarios. Initial reflection revealed that abstract explanations would be unsuitable for young children; messages therefore needed to be concrete, brief, visual, and accompanied by direct practice. This process reflects the role of structured reflection in aligning service activities with community needs and improving the relevance of service-learning actions (Jacoby, 2015; Kawai, 2021).



Figure 1. (1) Pre-implementation Activities: Initial Observation at the Childcare Center by the Community Service Team and the Childcare Community, (2, 3) Design of Community Service Activities, and (4) Initial Reflection during the Pre-implementation Stage

Implementation

During implementation, the activities were conducted directly at the UIN Alauddin Makassar Child Growth and Development Center. Poster-based storytelling addressed peer-play rules, emotional well-being, handwashing, toothbrushing, safe use of play

equipment, healthy foods, and balanced nutrition. Students also facilitated personal-hygiene checks, height and weight measurement, and guided meal practice. Children were encouraged to respond, demonstrate routines, identify examples, and retell messages in their own words.

The combination of storytelling, visual media, demonstration, and direct practice was appropriate for children who learn most effectively through concrete and participatory experiences. Posters served as visual prompts, while storytelling placed health and safety messages in familiar situations. Evidence from preschool oral-health education supports storytelling as a means of improving children's immediate knowledge and recall, while handwashing promotion is most effective when messages are accompanied by opportunities to practice the behavior (Ejemot-Nwadiaro et al., 2021; Shruti et al., 2021). Guided handwashing and meal activities therefore enabled children to observe and practice the expected behavior rather than only hear an explanation. The children's enthusiasm and active responses suggest that the methods were engaging. Nevertheless, because engagement was assessed through observation rather than a standardized measure, the result should be understood as a descriptive program outcome.

Caregivers were involved because they are responsible for maintaining routines after the service team leaves. Posters were placed at strategic points to support repeated communication and to help caregivers model healthy, safe, and nutritionally balanced behavior. Printed educational materials can reinforce messages when they are clear, accessible, and integrated into practice, although materials alone are insufficient without adult guidance (Giguère et al., 2020; Hasanica et al., 2020). In this program, caregiver participation increased the likelihood that messages introduced during the activity would be repeated in everyday childcare routines.



Figure 2. (1) Implementation Activities: Children's Personal Health Checks (Oral and Nail Hygiene), (2) Measurement of Children's Height and Weight, (3) Poster-based Education Through Storytelling, (4) Introduction to Healthy Foods, and (5) Placement of Posters at Strategic Locations within the Childcare Center

At the end of the sessions, several children were able to recall and retell key messages using simple language. During guided meal practice, they identified examples of

healthy food and followed basic eating routines. These observations indicate immediate comprehension and participation, not long-term behavior change. Experiential nutrition education is relevant because children's eating behavior is shaped by repeated exposure, adult modeling, sensory experience, and the surrounding food environment (Contento, 2008; Mikkelsen et al., 2014; Nekitsing et al., 2018; Scaglioni et al., 2018). The height and weight measurements and hygiene checks also provided caregivers with descriptive information that could support further attention to children's health, but they were not intended as clinical diagnosis or formal nutritional assessment (WHO, 2006).

The health-check results were communicated to caregivers so they could follow up within routine care and, when necessary, discuss concerns with parents or appropriate health professionals. Safety education emphasized keeping play areas free from hazards, using equipment appropriately, avoiding sharp objects, recognizing simple emergencies, and seeking adult help. The posters provided continuing cues for caregivers and children. Reviews of child-injury prevention indicate that safety education is more likely to influence practice when it is accompanied by appropriate equipment and environmental modification (Kendrick et al., 2012). However, the program did not assess injury rates, dietary intake, or sustained practice after the intervention; claims of effectiveness are therefore limited to observed participation, immediate recall, and perceived usefulness.

Post-implementation

At the post-implementation stage, the team conducted final evaluation and reflection. Children were invited to respond to questions and retell messages presented through posters, storytelling, and guided practice. Observations showed that they enjoyed the sessions, participated actively, and could recall several key messages. These outcomes are consistent with evidence that active learning supports engagement and understanding when activities are connected to children's experience (Darling-Hammond et al., 2020; OECD, 2021).



Figure 3. Post-implementation Activities: Final Evaluation and Reflection with the Community Service Team

Reflection with caregivers and the service team highlighted two practical contributions. First, caregivers gained examples of developmentally appropriate ways to communicate health, safety, and nutrition messages. Second, posters placed in strategic locations provided prompts that could be reused after the program ended. For students, the activity offered experience in translating academic knowledge into accessible community education and in revising facilitation based on reflection. These reciprocal benefits represent an important characteristic of service learning (Jacoby, 2015). Meta-analyses and systematic reviews similarly report that service learning can strengthen academic performance, civic engagement, social skills, and personal development when service activities are connected to curricular goals and structured reflection (Celio et al., 2011; Salam et al., 2019; Yorio & Ye, 2012).

The program had several limitations. The posters were relatively small, which reduced their visibility and made children dependent on adult explanation. The evaluation relied on unstructured observation and immediate recall; it did not use baseline data, validated instruments, comparison groups, or follow-up observation. The children's age range was also not documented in the available manuscript, limiting interpretation of developmental appropriateness. Future programs should use larger and more interactive media, record participant demographics, develop an observation rubric or simple pre-post assessment, involve parents, and conduct follow-up to examine whether healthy, safe, and nutritionally balanced routines are maintained.

CONCLUSIONS

This community service program implemented service learning to provide health, safety, and nutrition education at the UIN Alauddin Makassar Child Growth and Development Center. Through collaborative planning, poster-based storytelling, guided meal practice, hygiene checks, and growth measurement, the program engaged 20 students, 2 caregivers, and 15 children. Observations indicated active participation and immediate recall of key messages, while caregivers obtained practical resources for reinforcing daily routines. The principal contribution of the program lies in linking student learning with a concrete community need through partnership and reflection. Because outcomes were assessed qualitatively and without follow-up, the findings should not be interpreted as evidence of sustained behavioral change. Future implementation requires clearer participant demographics, standardized evaluation, larger interactive media, parent involvement, and longitudinal monitoring.

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