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Engaging Teachers, Empowering Children: Guidance on Implementing Joint Daily Physical Activity in Early Childhood Education

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Abstract

Physical activity and movement habits are important components of early childhood development. However, movement activities in early childhood education settings are not always implemented as consistent daily routines. This community engagement activity aimed to strengthen early childhood teachers' capacity and self-efficacy in implementing routine and enjoyable movement activities through "Joint Daily Activity Assistance". The activity involved 12 early childhood teachers and 1 school principal from TK Negeri Pembina Banjarmasin Timur (N=13). It was implemented through material delivery, demonstrations, movement practices, discussion, evaluation, and the development of individual follow-up plans. Data were collected through a pretest-posttest, a self-efficacy questionnaire administered at the end of the activity, and an assessment of the quality of participants' follow-up plans using a structured rubric. A paired-samples t-test was used to analyze pretest-posttest knowledge data, and descriptive analysis was used to assess teacher self-efficacy and the quality of implementation planning. The results showed a significant difference between the pre- and post-intervention knowledge scores, with an average increase of 5.23 points (Mean score change from 19.77 to 25). The Wilcoxon test also supports this result and aligns with teacher self-efficacy, which had a mean score of 4,9 out of 5, categorized as very high. Analysis of the follow-up plan document resulted in a mean score 26,67 out of 28, with all plans categorized as very good. The activity indicates that structured mentoring in the shape of assistance can strengthen teachers' readiness and capacity to plan sustainable daily movement routines, while subsequent programs should emphasize implementation monitoring and measurable child outcomes.

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INTRODUCTION

Young children are in a "golden period" characterized by rapid development across various domains, including physical-motor, cognitive, social-emotional, and language. The development of these domains is closely interrelated. One of the earliest developments observed in young children is physical-motor development. This age period is a critical stage for physical and motor development, as it lays the foundation for a child's independence, health, learning, and, later on, social and emotional regulation. Numerous studies have shown that motor skills not only reflect healthy growth but are also linked to executive function, prosocial behavior, participation in physical activities, and even academic achievement (Stephani et al., 2019; Wang & Zhou, 2024; Zeng et al., 2017). In other words, motor development is often used as an indicator of overall growth and development in children (Adin Suryadin & Wahyuningsih, 2023; Riha Adatul'aisy et al., 2023; Tajuddin et al., 2022).

Motor development in young children is more strongly linked to executive function than to the frequency or intensity of their activities (Willoughby & Hudson, 2023). However, consistent physical activity in young children promotes better motor development (Carson et al., 2017). Structured physical activity in preschoolers generally improves motor skills and often enhances cognitive outcomes, including attention, working memory, language, and academic achievement (Zeng et al., 2017). Furthermore, training specifically focused on motor

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development leads to significant improvements in locomotor skills, object control, and the gross motor quotient compared to regular physical activity (Wang & Zhou, 2024). It indicates that motor development in early childhood is important.

Ensuring that people engage in physical activity is essential, especially in this digital age. According to an official article from the Health Development Policy Agency (Kemenkes, 2025) of the Indonesian Ministry of Health, it is stated that by 2025, 37.4% of Indonesians aged 10 and older will be classified as physically inactive based on the results of the Indonesian Health Survey (SKI). It is reported that the main causes vary, including 48.7% who lack time, 32.6% who are lazy, 19.5% who are elderly, and 9.8% who do not have exercise partners (Kemenkes, 2025). Meanwhile, for young children, although national figures are not yet available, several indicators point to a downward trend in physical activity, driven by increased use of electronic devices, increased sedentary behavior, and reduced time spent playing outdoors (Ramdhan et al., 2024). According to the guidelines for daily physical activity issued by the World Health Organization (WHO) for children aged 3–4 years, a minimum of 180 minutes of physical activity per day is recommended, with at least 60 minutes consisting of moderate-to-vigorous physical activity; screen time should be limited to a maximum of 1 hour per day; and children should get 10–13 hours of quality sleep per day (McGowan et al., 2021; Wenden et al., 2023). This issue certainly warrants attention.

Many preschoolers do not meet all the guidelines issued by the WHO, and this is most often due to excessive screen time (Kracht et al., 2021). A study found that more than 70% of children were reported to be sedentary, particularly while in childcare outside the home. Therefore, the school setting is a key target for establishing physical activity routines (McGowan et al., 2021). In the school setting, several issues have arisen regarding this matter. Based on the results of initial discussions with community service partners, several issues related to physical activity were identified within the partners' communities. These issues include (1) a lack of awareness regarding the importance of physical activity and its integration into the school's daily routine; (2) Physical activities such as gymnastics or motor skills games are conducted only occasionally (1–2 times a week); there is no specific schedule that integrates active movement into daily learning activities, which has prevented the development of a school culture that supports an active lifestyle from an early age; (3) Teachers' limited competence in designing structured physical activities; (4) Physical activities are not designed in accordance with the stages of motor development in early childhood, and there is a lack of variety in movement activities that are engaging, safe, and easy to implement; (5) The lack of an evaluation system for gross motor development; and (6) Teachers are not yet accustomed to conducting reflection and evaluation based on physical-motor development indicators.

It is important to understand that early childhood is a critical period for the formation of active habits that can persist into later life (Crumbley et al., 2020; St. Laurent et al., 2021). Establishing a routine of physical activity from an early age is important because these active behaviors tend to persist, thereby influencing health, development, and long-term disease risk (Carson et al., 2017; Crumbley et al., 2020; Jones et al., 2013). It is also noted that early childhood is a critical period for establishing sustainable physical activity patterns, rather than trying to correct them once sedentary habits have become ingrained (Jakobovich et al., 2023; Pfeiffer & Clevenger, 2025). Encouraging physical activity from an early age tends to improve cognitive and psychosocial development, as well as cardiometabolic indicators (Carson et al., 2017). On the other hand, consistent physical activity during childhood is crucial, as activity that continues for 3–6 years significantly increases the likelihood of remaining active in adulthood (Telama et al., 2005). The main factors that support the development of regular physical activity habits from an early age include parents (modeling), the family environment, school, early interventions, and social collaboration (Calderón Landívar et al., 2025; Fitzgerald et al., 2022; Lindsay et al., 2017; Lu & Montague, 2016; Piszka et al., 2025; Sohail & Ludvigsson, 2025).

It is hoped that this school mentoring program will address the problem faced by our partners, namely, the gap between the need for motor stimulation through daily physical activity and current practices in the field. In fact, recent Indonesian research confirms that consistent daily physical activity is positively correlated with gross motor development and learning readiness in early childhood (Jovanka, 2024). The main issues addressed are the lack of integration of active movement into daily routines, teachers' limited competence in designing structured physical activities, the lack of technical implementation guidelines, and the absence of a system for monitoring children's gross motor development. To address these issues, a systematic implementation method was designed.

Physical activity in early childhood is important not only for getting children "moving a lot" but also for building a foundation for long-term development and health. Active movement from an early age supports overall development, with the most consistent benefits seen in motor skills and additional benefits in cognitive, social-emotional, and general

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health. This is what motivated the community service team to implement a mentoring program in partnership with TK Negeri Pembina Banjarmasin Timur. The purpose of this school mentoring program is to foster a culture of daily physical activity in early childhood education centers through systematic and ongoing mentoring. Specifically, this initiative aims to identify the baseline conditions of physical activity practices at partner schools, develop a model for fostering active movement habits that aligns with the developmental characteristics of young children, produce practical and easy-to-implement technical guidelines titled "Active Joint Daily Activity," and ensure that our partners can utilize existing guidelines.

MATERIALS AND METHODS

Materials

The main materials used in this community service initiative include educational materials for practising the movements and equipment for group movement exercises. The educational resources for practising the movements comprise PowerPoint presentations to be delivered to the participants, as well as digital pocket guides distributed before the community service initiative begins. Support equipment, such as laptops, projectors, and portable speakers, was also provided to ensure the smooth running of the mentoring activities conducted by the community service team. In addition to the teaching materials, practical equipment such as balls and Asturo paper was also provided. The educational content provided to participants was based on prior research.

Methods

Activity Design

This community service initiative was carried out at TK Negeri Pembina Banjarmasin Timur, targeting all teaching staff gathered in the classroom. School-based assistance to establish daily movement routines for young children is most effective when it combines teacher training, structured integration of movement into existing curricula, and ongoing professional support. Evidence from multiple intervention and observational studies confirms that embedding movement into daily school routines reduces sedentary behavior and increases physical activity in preschool-aged children (Ha et al., 2025; Nielsen-Rodríguez et al., 2022; Raiola, 2025). The activity was conducted using a practice-based mentoring approach that combined traditional classroom-based teaching with physical exercises.

This community service programme included practical activities and assignments to ensure that the participants understood the material presented. In addition, a pocket guide was provided as supplementary material for the activities. The programme, which includes workshops, practical sessions, teaching materials, and guidance on a wide range of activities, has demonstrated measurable benefits (Ha et al., 2025). In addition, training or similar activities involving workshops and practical sessions have been shown to strengthen knowledge of pedagogical content (Mavilidi et al., 2022) and, when accompanied by teaching materials and supporting equipment, can reduce barriers to implementation (Ha et al., 2025). Based on the preliminary needs assessment, the main issues addressed are the lack of integration of active movement into daily routines, teachers' limited competence in designing structured physical activities, and the lack of technical implementation guidelines. Table 1 presents the solutions to the identified problems and the expected output of the community service activity.

Table 1. Solution of dedication

Problem	Solution	Output
The lack of integration of active movement into daily routines	Assistance in integrating active movement into daily routines and school activities	Action plan
Teachers' limited competence in designing structured physical activities	Assistance in designing structured physical activities	Increased understanding and competence in designing structured physical activities as daily
The lack of technical implementation guidelines	Needs analysis and handbook for daily movement routines implementation guides	Handbook daily movement routines

The community service activity is carried out in three main stages: preparation, implementation, and evaluation (Fig. 1). In this preparation stage, the team conducted a preliminary needs assessment through informal discussions with the principal and teachers in TK Negeri Pembina Banjarmasin Timur to identify the gap between the need for motor stimulation through daily physical activity and current practices in the field. Once the main issues had been identified, the community service team drew up guidance materials, including a pocket guide and technical guidelines, for implementing the mentoring

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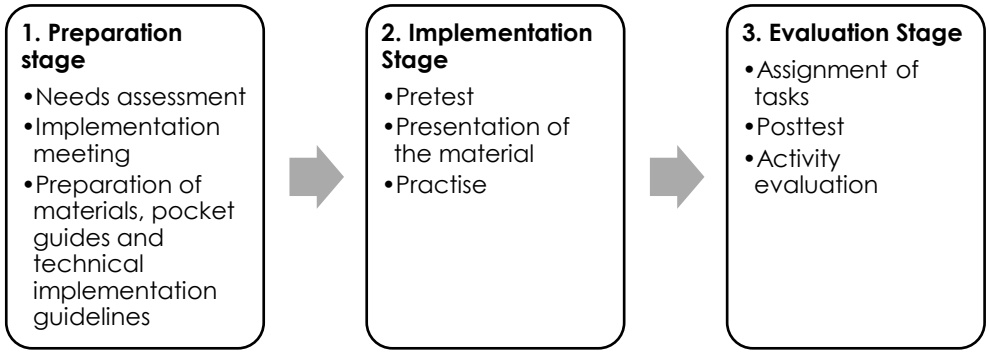


Fig. 1. Community service activity stages

programme to ensure the smooth running of community service activities.

The implementation stage of the joint movement guidance programme at the school was held at TK Negeri Pembina Banjarmasin Timur. The session began with a pre-test questionnaire, then continued to a presentation covering the concept of gross motor development in early childhood, the principles of designing structured physical activities, techniques for leading enjoyable active movement sessions, and classroom management during physical activities. Before the presentation session began, participants were asked to complete a pre-test questionnaire to assess their prior knowledge. Once the presentation concluded, it was followed by a question-and-answer session, then a sharing session with the participants. The session continued with a practical exercise on designing structured physical activities.

At the end of the session, the facilitators conducted a reflection and evaluation to assess participants' understanding of the content. The evaluation was carried out by assigning a follow-up action plan and administering two types of post-tests: a knowledge test and a self-efficacy questionnaire.

Instruments

This community service activity was evaluated using two assessment tools: multiple-choice tests for the pre-test and post-test and a self-efficacy questionnaire. The self-efficacy questionnaire to be used in this activity consists of 25 statements. In the self-efficacy questionnaire, responses were based on a scale comprising the following statements: 'Very Unsure' (1), 'Not sure' (2), 'Quite sure' (3), 'Sure' (4), and 'Absolutely certain' (5). The self-efficacy questionnaire is divided into five aspects, covering knowledge of the importance of physical activity, competence in designing physical activity programmes, the integration of physical activity into learning, the assessment of motor development, and attitudes and readiness for implementation. The questionnaire, in the form of a multiple-choice test, consists of 25 questions designed to assess changes in participants' knowledge in the mentoring programme. These questions are drawn from the mentoring materials and the pocket guide distributed to the participants (Table 2).

Table 2. Knowledge test outline

Aspects	Indicators	Question Number
The concept of active movement	Definition, benefits, urgency	1-5
The principle of habituation	Principles of active movement	6-10
Types of active movement	Gross and fine motor skills, movement and song, traditional games	11-15
Habituation model	Introduction, main body, conclusion	16-20
Implementation of activities	Examples of developmental activities and objectives	21-25

Analysis Technique

The data from this mentoring programme were analysed quantitatively to determine changes in teachers' knowledge and self-efficacy following their participation in the mentoring programme on incorporating 'Joint Daily Activity' into the daily routines of young children. The analytical design used was a one-group pre-test–post-test design, analysed using a paired-samples t-test, which involves measuring the same group of participants before and after they received the intervention, namely the mentoring programme. In addition, the follow-up

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action plans drawn up by the participants will also be analysed.

1. Analysis of the knowledge test
   A knowledge test analysis was carried out to measure the increase in participants' knowledge before and after the mentoring programme. For each correct answer, participants were awarded 1 mark, whilst incorrect answers were awarded 0 marks, meaning the maximum score was 25. The scores were then converted to marks on a scale of 0–100. The pre-test and post-test data were subsequently analysed descriptively by calculating the minimum, maximum, mean, median and standard deviation.
2. Analysis of the self-efficacy questionnaire
   The self-efficacy questionnaire administered to participants after the activity assessed their self-efficacy following the mentoring programme. The self-efficacy data were analysed descriptively using the minimum, maximum, mean, median, and standard deviation (Table 3). In addition to the total score, an analysis could be conducted for each aspect to identify which aspect of self-efficacy had changed the most. Each participant's score is calculated by summing the scores for all items. With 25 items, the minimum score is 25, and the maximum score is 125.

Table 3. Categorisation of self-efficacy scores based on mean

Item Mean Score	Category	Interpretation
4.21–5.00	Very high	Absolutely certain
3.41–4.20	High	Sure
2.61–3.40	Medium	Quite sure
1.81–2.60	Low	Not sure
1.00–1.80	Very low	Very unsure

3. Action plan task analysis
   At the end of the session, participants were asked to develop a follow-up plan outlining how they would introduce daily physical activity routines in their respective classes. The follow-up plans were analysed to assess the participants' ability to translate the knowledge gained during the mentoring programme into concrete implementation plans. The action plan was analysed using an assessment rubric comprising seven aspects, namely: (1) analysis of the initial situation, (2) objectives of the activities, (3) daily activity schedule, (4) suitability of the activities for the children's development, (5) variety of activities, (6) indicators of success, and (7) solutions to obstacles. Each aspect is scored on a scale of 1–4. With seven aspects, the maximum score is 28, and the minimum score is 7 (Table 4). The RTL scores are then analysed descriptively using averages and percentages.

Table 4. Categorisation of action plan scores

Score item	Category
24–28	Very good
19-23	Good
14-18	Fairly good
<13	Requiring support

RESULTS AND DISCUSSION

Preparation Stage

The preparatory phase began when the team coordinated with the school where the community service project was to be carried out, namely TK Negeri Pembina Banjarmasin Timur. The team then conducted informal interviews to assess initial needs regarding the gap between the need for motor stimulation through daily physical activities and the practices currently in place at the school. The community service team then used the results of that discussion to develop the content and technical aspects of the community service activities. In addition to PowerPoint presentations, the community service team prepared a pocket guide intended to serve as a reference for participants during mentoring activities and to continue being used after the mentoring period ends. Fig. 2 shows the materials prepared by the community service team.



Fig. 2. Materials prepared

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Implementation Stage

The mentoring session was held at TK Negeri Pembina Banjarmasin Timur after school hours. The session was attended by the principal and 12 teachers from TK Negeri Pembina Banjarmasin Timur. The mentoring session consisted of three main parts: a presentation, a question-and-answer and discussion session, and a hands-on activity session. Before the presentation, participants were asked to complete a pretest. After confirming that all participants had completed the pretest, the session continued with a presentation by the facilitator. During the presentation, the training focused on the concept of gross motor development in early childhood; the principles of designing structured physical activities; techniques for leading fun, active movement exercises; and classroom management during physical activities. Fig. 3 shows the participants taking the pretest, and Fig. 4 shows the facilitator presenting the material.



Fig. 3. The participants answering the pretest

The next session was practical. In this session, participants were divided into three small groups, each consisting of four educators. Two groups were given toy balls, and the third group was given three rolls of paper. Participants were then given time to devise movements that children could perform. After discussing the movements, the participants presented their findings to the other teams. Fig. 5 shows the practical activities carried out by all participants in the mentoring program.



Fig. 4. Facilitator conducting the material

Evaluation Stage

The evaluation was conducted after the implementation phase was completed. The facilitators conducted a reflection and evaluation session to assess the participants' understanding of the session content. The evaluation was carried out by assigning a follow-up action plan and administering two types of post-tests: a knowledge test with multiple-choice questions and a self-efficacy questionnaire.

1. Knowledge test results (pretest-posttest)
   The total number of participants in the community service activity was 13 (1 school principal and 12 teachers). Based on the respondents' characteristics, the data showed that most teachers had been teaching for 5–10 years. Fig. 6 is a diagram showing participants' characteristics by teaching experience.



Fig. 5. The participants engaged in practical activities involving physical movements

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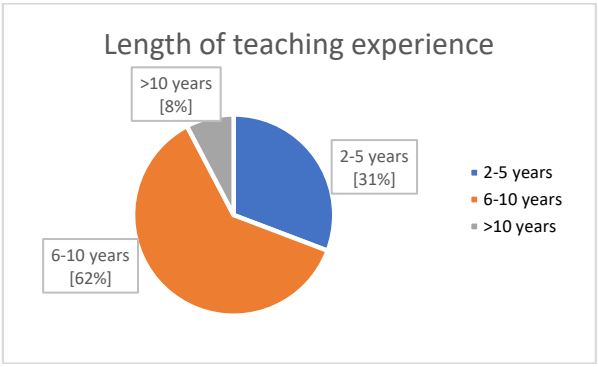


Fig. 6. Characteristics of participants based on length of teaching experience

The score calculations indicate that, descriptively, the average knowledge level of the program participants increased by 5.23, representing a 20.92% increase. The score increased from 79.08% to 100%. More detailed results can be found in Table 5. Based on the available data, all respondents showed an increase in knowledge.

To rigorously evaluate changes in participants' knowledge across domains, an aspect-level analysis was conducted using the five conceptual dimensions (Table 2). Overall, participants' knowledge increased significantly from 19.77 ± 1.83 (79.08%) to 25.00 percentage-point improvement ($t(12)=10.290$, $p < 0.001$; Wilcoxon $Z = -3.18$, $p = 0.001$; Cohen's $d=2.85$). Details of the results can be found in Table 6.

Table 5. Descriptive statistics results

Statistics	Pretest	Posttest	Change
N	13	13	13
Minimum score	17	25	2
Maximum score	23	25	8
Mean	19.77	25	5.23
SD	1.83	0	1.83
Mean percentage	79.08%	100%	20,92%

Before conducting the paired-sample t-test, the data were first tested for normality using the Shapiro-Wilk test, yielding a W value of 0.925 and a p-value of 0.294. Since the p-value (significance) was greater than 0.05, the data distribution was deemed normal, and the paired-sample t-test could proceed. The results of the paired-sample t-test showed $t(12) = 10.290$ with $p < 0.001$. Thus, it can be concluded that there is a significant difference between the pre- and post-intervention knowledge scores, with an average increase of 5.23 points.

Table 6. Knowledge by aspects score

Aspects (Max score)	Pretest Mean ± SD (%)	Posttest Mean ± SD (%)	Change (Point, %)	Normality Difference Test (W, p)	Paired t-test (t, df, p)	Wilcoxon Test (Z, p)	Effect Size (Cohen's d)
The concept of active movement (max 5)	2.92 ± 1.12 (58.46%)	5.00 ± 0.00 (100.00%)	+2.08 (41.54%)	W = 0.762 p = 0.002	t(12)= 6.706 p<0.001	Z=-3.18 P=0.001	d=1.86 (Large)
The principle of habituation (max 5)	3.38 ± 0.87 (67.69%)	5.00 ± 0.00 (100.00%)	+1.62 (32.31%)	W = 0.778 p = 0.003	t(12)=6.706 p<0.001	Z=-3.18 P=0.001	D=1.86 (Large)
Types of active movement (max 5)	5.00 ± 0.00 (100.00%)	5.00 ± 0.00 (100.00%)	0.00 (0.00%)	N/A (constant)	N/A (constant)	N/A (constant)	N/A (constant)
Habituation model (max 5)	4.62 ± 0.65 (92.31%)	5.00 ± 0.00 (100.00%)	+0.38 (7.69)	W = 0.650 p < 0.001	t(12)= 2.132 p= 0.054	Z=-1.63 P=0.102	d=0.59 (Medium)
Implementation of activities (max 5)	5.00 ± 0.00 (100.00%)	5.00 ± 0.00 (100.00%)	0.00 (0.00%)	N/A (constant)	N/A (constant)	N/A (constant)	N/A (without variances)
Total Knowledge Score (Max 25)	19.77 ± 1.83 (79.08%)	25.00 ± 0.00 (100.00%)	+5.23 (20,92%)	W = 0.709 p < 0.001	t(12)= 10.290 p<0.001	Z = -3.18 p=0.001	d = 2.85 (Large)

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In addition to the paired-sample t-test, a nonparametric analysis was conducted as a supplementary test. This was done because the sample size was relatively small and the posttest distribution exhibited a ceiling effect and violation of normality in the difference scores (Shapiro-Wilk W=0.709, p<0.001)(caused by all participants achieving the maximum score on the posttest, Mean=25.00, SD=0.00); therefore, it was decided to conduct the Wilcoxon signed-rank test. The results of the Wilcoxon signed-rank test showed that $Z \approx -3.18$ and $p < 0.001$. These results are consistent with the paired t-test, indicating a significant difference in knowledge between the pretest and posttest. Next, an effect size test was conducted using Cohen's dz, yielding a dz of 2.85. This value falls into the category of a very large effect size, meaning that the intervention administered is closely associated with a very strong change in the participants' knowledge.

2. Results of the Teacher Self-Efficacy Survey

Self-efficacy was measured at the end of the mentoring program using a questionnaire comprising 25 statements rated on a 1–5 Likert scale. The instrument measured five aspects: conceptual understanding, activity planning, integration into learning, evaluation of motor development, and readiness and commitment to implementing active movement habits. Analysis of the 13 respondents showed that self-efficacy scores ranged from 117 to 125, with an average total score of 122.58 (SD = 3,15). When converted to an average score per item, the result is 4.90 out of a maximum score of 5.00, or 98.07% of the ideal score. Based on the categorization criteria, this average falls into the "very high" category. All respondents (100%) achieved a total score in the "very high" category. A summary of the results is presented in Table 7. Based on the established categorization, the analysis shows that all respondents fall into the "very high" category. This is shown in Table 8.

When examined by aspect, the highest average score was for activity planning at 4.95, followed by conceptual understanding at 4.93, evaluation of motor development at 4.90, readiness and commitment to implementation at 4.88, and integration into learning at 4.85. All aspects fell into the "very high" category. The findings indicate that after participating in the mentoring program, participants expressed a very high level of confidence in their ability to understand the concept of active movement, design activities, integrate movement activities into learning, assess motor development, and maintain active movement practice. Overall, the aspect with the highest score was activity planning (4.95), while the aspect with the lowest score was integration into learning (4,85).

Table 7. Descriptive statistics results

Statistics	Results
Number of respondents	13
Number of items	25
Actual minimum score	117
Actual maximum score	125
Mean total score	122,58
SD	3,15
Mean per item	4,90 / 5,00
Percentage of achievement	98,07%
Category	Very high

Table 8. Survey Item Mean Score results based on score categorization

Category	Range	n	%
Very low	25–44	0	0%
Low	45–64	0	0%
Medium	65–84	0	0%
High	85–104	0	0%
Very high	105–125	12	100%

3. Action plan task results

At the end of the session, the facilitators assigned tasks to the participants, which were then to be submitted as files. These follow-up plans were intended to be implemented in each participant's respective classroom. The tasks included the objectives of the follow-up plan, an analysis of the initial conditions, a schedule for daily physical

Table 9. Means and interpretation of scores by aspect

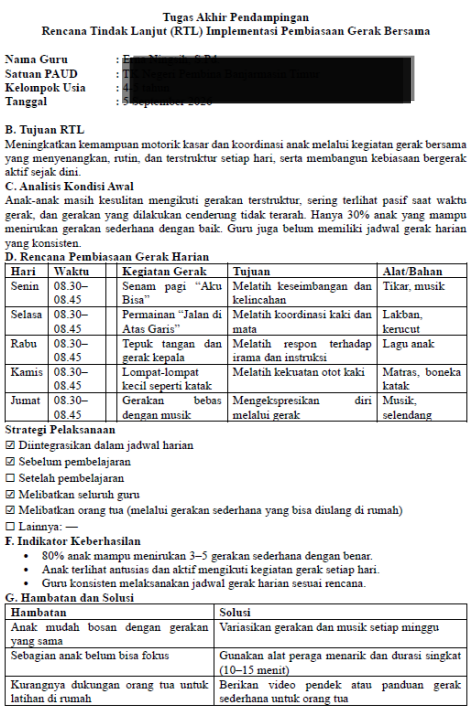
Self-Efficacy Aspects	Average score per item	Average total score	Category
Conceptual understanding	4.93	24.67	Very high
Activity Planning	4.95	24.75	Very high
Integration in Learning	4.85	24.25	Very high
Motor Development Assessment	4.90	24.50	Very high
Readiness/commitment to implementation	4.88	24.42	Very high
Overall	4.90	122.58	Very high

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Table 10. Action plan score by aspects

Assessment Criteria	Mean	SD	Achievement
1. Analysis of the initial situation	3.17	0.39	79.17%
2. Objectives of the activities	4.00	0.00	100.00%
3. Daily activity schedule	4.00	0.00	100.00%
4. Suitability of the activities for the children's development	3.92	0.29	97.92%
5. Variety of activities	3.92	0.29	97.92%
6. Indicators of success	3.17	0.39	79.17%
7. Solutions to obstacles	4.00	0.00	100.00%

activity routines, implementation strategies, success indicators, and potential obstacles and solutions. The results of the analysis, based on the score categorization in Table 4, show that the participants in the mentoring program achieved an average score of 26.67 out of a maximum of 28—95.24 percent and all fell into the "Very Good" category (Table 9). This indicates that the participants were able to translate the knowledge and experience they gained into concrete implementation plans for the "Joint Daily Activity" initiative. A summary of the scores from the analysis of the follow-up plans by aspect is presented in Table 10.



Tugas Akhir Pendampingan
Rencana Tindak Lanjut (RTL) Implementasi Pembiasaan Gerak Bersama

Nama Guru : [redacted]
Satuan PAUD : [redacted]
Kelompok Usia : [redacted]
Tanggal : [redacted]

B. Tujuan RTL
Meningkatkan kemampuan motorik kasar dan koordinasi anak melalui kegiatan gerak bersama yang menyenangkan, rutin, dan terstruktur setiap hari, serta membangun kebiasaan bergerak aktif sejak dini.

C. Analisis Kondisi Awal
Anak-anak masih kesulitan mengikuti gerakan terstruktur, sering terlihat pasif saat waktu gerak, dan gerakan yang dilakukan cenderung tidak terarah. Hanya 30% anak yang mampu menirukan gerakan sederhana dengan baik. Guru juga belum memiliki jadwal gerak harian yang konsisten.

D. Rencana Pembiasaan Gerak Harian

Hari	Waktu	Kegiatan Gerak	Tujuan	Alat/Bahan
Senin	08.30–08.45	Senam pagi "Aku Bisa"	Melatih keseimbangan dan kelincahan	Tikar, musik
Selasa	08.30–08.45	Permainan "Jalan di Atas Garis"	Melatih koordinasi kaki dan mata	Lakban, kerucut
Rabu	08.30–08.45	Tepuk tangan dan gerak kepala	Melatih respon terhadap irama dan instruksi	Lagu anak
Kamis	08.30–08.45	Lompat-lompat kecil seperti katak	Melatih kekuatan otot kaki	Matras, boneka katak
Jumat	08.30–08.45	Gerakan bebas dengan musik	Mengekspresikan diri melalui gerak	Musik, selendang

Strategi Pelaksanaan
☑ Diintegrasikan dalam jadwal harian
☑ Sebelum pembelajaran
☐ Setelah pembelajaran
☑ Melibatkan seluruh guru
☑ Melibatkan orang tua (melalui gerakan sederhana yang bisa diulang di rumah)
☐ Lainnya: —

F. Indikator Keberhasilan
- 80% anak mampu menirukan 3–5 gerakan sederhana dengan benar.
- Anak terlihat antusias dan aktif mengikuti kegiatan gerak setiap hari.
- Guru konsisten melaksanakan jadwal gerak harian sesuai rencana.

G. Hambatan dan Solusi

Hambatan	Solusi
Anak mudah bosan dengan gerakan yang sama	Variasikan gerakan dan musik setiap minggu
Sebagian anak belum bisa fokus	Gunakan alat peraga menarik dan durasi singkat (10–15 menit)
Kurangnya dukungan orang tua untuk latihan di rumah	Berikan video pendek atau panduan gerak sederhana untuk orang tua

Fig 7. Sample of action plan task

An analysis of 12 Follow-Up Action Plan documents showed that the quality of planning for the "Gerak Bersama" initiative averaged 3.74 out of a maximum score of 4.00, with a 93.45% achievement rate (Fig. 7). Based on the seven evaluation criteria, the formulation of activity objectives, the preparation of daily exercise schedules, and the identification of obstacles and solutions achieved the highest scores, each at 100%. The alignment of activities with children's developmental stages and the variety of motor activities also showed very high achievement rates, at 97.92% each. Meanwhile, the analysis of initial conditions and the formulation of success indicators achieved relatively lower rates, at 79.17% each. These findings indicate that teachers have developed systematic, varied, and developmentally appropriate motor skill training plans. However, the ability to identify baseline conditions from data and to formulate specific, measurable success indicators still needs strengthening. Therefore, ongoing guidance should focus on developing simple assessments, observing motor development, and documenting the implementation of activities so that the "Gerak Bersama" program can be evaluated more objectively.

4. Overall Results from Service Activities
   The community service activities conducted at TK Negeri Pembina Banjarmasin Timur can generally be said to have achieved their objectives. This is evident from changes in participants' knowledge, the results of the self-efficacy analysis, and the analysis of the follow-up tasks they completed. A brief overview of the positive changes from the initial conditions following the mentoring can be seen in Table 11.

Discussions

The changes following this community service initiative indicate that mentoring, combined with hands-on practice sessions and assignments, effectively enhanced participants' knowledge and skills. These significant changes were particularly evident in the educators' knowledge and their ability to design "Joint Daily Activity" physical activities for early childhood students, specifically at TK Negeri Pembina Banjarmasin Timur. These findings are consistent with other studies that have conducted community service projects using the same methodology. Mentoring activities that combine conceptual material, hands-on practice sessions, and structured assignments have been shown to

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Table 11. Changes resulting from service activities

Initial Condition	Intervention	Condition Change
The lack of integration of active movement into daily routines	Assistance in integrating active movement into daily routines and school activities	There have been changes in the way active movement is integrated; teachers now incorporate active movement into daily activities at school
Teachers' limited competence in designing structured physical activities	Assistance in designing structured physical activities	There were changes in the aspects of teachers' competence in designing structured physical activities (13 teachers) after the assistance
The lack of technical implementation guidelines	Needs analysis and handbook for daily movement routines implementation guides	The teachers developed weekly activity plans to serve as a guide for daily physical movement activity.

Improve teachers' competence in designing physical activities at school (Br Tarigan et al., 2026; Jariono et al., 2026).

A comparison of participants' knowledge before and after the activity indicated a measurable improvement among those who received the guidance. Before the activity, based on discussions with school principals and teachers, there were complaints about the lack of integration of physical activity into daily activities, attributed to teachers' limited competence in designing structured physical activities and the absence of technical guidelines for their implementation. After participating in the mentoring program, participants showed positive changes, indicating that the intervention effectively improved their mastery of the program's subject matter. These changes were evident not only in the group average but also among all participants. No participant experienced a decline in scores following the intervention. Analysis by aspect showed that the greatest increase in knowledge occurred in the aspects of the concepts and benefits of active movement (41.54 percentage points; d = 1.86) and the principles of active movement habituation (32.31 percentage points; d = 1.86). Meanwhile, the implementation stages aspect increased by only 7.69 percentage points and was not statistically significant (p=0.054), while the implementation and strategy aspects showed no change because all participants had already achieved the maximum score on the pretest. These findings indicate that the mentoring intervention provided was highly effective in strengthening participants' basic understanding of the concepts and benefits, principles and habits, types of activities and motor skills, stages of movement execution, as well as the implementation and strategies of active movement.

Teachers' knowledge and understanding of the importance of physical activity for young children are key determinants of the success of promoting physical activity among children. The increase in teachers' knowledge and understanding following this mentoring program is a positive development, as teachers' knowledge and capacity have been shown to significantly improve their skills, attitudes, and self-efficacy in teaching fundamental motor skills (Bourke et al., 2024; Kang & Han, 2025). As for teachers' limited pedagogical knowledge, several studies have found a direct link between this and a decline in the quality of physical activities, as well as a tendency to replace them with free play (Martínez-Bello et al., 2021; Sollerhed, 2023). Furthermore, teachers' limited conceptual understanding can lead to physical activities for children at school being conducted without a clear structure (Friskawati, 2024; Saamong et al., 2025).

This finding is further supported by the analysis, which shows that the mentoring program led to high levels of teacher self-efficacy. Based on the measurement results, the average teacher self-efficacy score was 4.90 out of 5.00, with all participants falling into the "very high" category. This indicates that the participants in the mentoring program have strong confidence in their ability to understand physical activity concepts, design activities, integrate movement into learning, observe children's motor development, and implement ongoing movement practice.

These findings are consistent with research conducted by Bruijns et al. (2021) and Szpunar et al. (2021), who found evidence that teachers' self-efficacy plays a crucial role as a predictor of active movement teaching behavior, whereby teachers who believe in their own abilities tend to be more active in encouraging physical activity in early childhood education settings. Conversely, low self-efficacy actually reduces teachers' motivation to increase children's engagement in physical activity (Bourke et al., 2024). It is certainly hoped that the high levels of teacher self-efficacy following the mentoring program will positively impact the physical activity of young children.

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Furthermore, the high levels of self-efficacy observed in the activity-planning aspect are consistent with the results of the Follow-Up Action Plan assignment administered at the end of the activity. Based on the analysis, the results show that the participants were able to translate their knowledge and understanding of the mentoring material into concrete activity plans. The average score was 26.67 out of 28, with all follow-up plans falling into the "very good" category. These findings indicate that teachers' confidence in their abilities goes beyond mere perception and is accompanied by the ability to develop more operational implementation plans.

The alignment between self-efficacy scores and follow-up plans was one of the key findings of this study. Teachers not only expressed high confidence in their abilities but also developed movement practice schedules, selected a variety of activities, set activity goals, adapted activities to specific age groups, and identified obstacles and solutions. Some RTLs demonstrated that activity planning was integrated into the school's daily routine. The pattern shows that the concept of movement habituation is understood as a routine, integrated activity rather than an incidental physical activity. Self-efficacy has been shown to correlate directly with the implementation of movement-based learning in the classroom (Walker et al., 2021).

Furthermore, teachers with high self-efficacy tend to use more effective instructional practices and are more likely to modify the classroom environment to increase children's physical activity (Bales et al., 2026). Another strength evident in the RTL is the participants' ability to anticipate implementation barriers. The participants formulated relatively practical solutions. This ability to anticipate barriers is important because the sustainability of movement habits is greatly influenced by teachers' ability to adapt the program to the actual conditions of early childhood education centers.

Limitations

Although the evaluation results (pretest-posttest, self-efficacy questionnaire, and follow-up plan) showed positive outcomes after the mentoring activities were implemented, several limitations must be considered when interpreting these results. First, the one-group pretest–posttest design used to analyze the pretest–posttest results still has limitations in identifying strong cause-and-effect relationships. Because the study did not use a control group, the increase in scores may also have been influenced by other factors. Therefore, the study's findings should be interpreted more accurately as indicating an increase in knowledge following the intervention, rather than as absolute causal evidence that the entire increase was solely attributable to the intervention. Second, in the posttest results, all participants achieved the maximum score, resulting in a ceiling effect. This may indicate that the questions were too easy; therefore, the test items need to be revised to assess knowledge better. Third, the relatively small sample size of 13 participants limits the generalizability of the study's results to a broader population. Future research could involve a larger sample size, a control group or comparison group, and instruments with a wider range of difficulty levels. Developing instruments with items that measure abilities at the comprehension, application, and analysis levels could also reduce the ceiling effect on the posttest. Third, because self-efficacy was measured only at the end of the program, the results cannot be used to conclude that self-efficacy increased as a result of the mentoring. Similarly, the quality of the RTL indicates readiness and the ability to plan implementation, but does not yet demonstrate that the motor skill practice was consistently carried out or that it resulted in changes in the children's motor development. Fourth, the evaluation of the activities did not include direct measurements of changes in the children's motor skills or physical activity levels following the implementation of the follow-up plan; therefore, these results do not reflect the children's developmental outcomes.

Implications and Recommendations

These findings have important implications for the development of future activities. Material on the pretest that showed a low level of mastery requires a greater portion of instruction because it offers the greatest potential for improvement. Meanwhile, for material that participants have already mastered, the focus can shift to practical activities and skill development. In classroom practice, high levels of self-efficacy and the quality of follow-up plans indicate that teachers are well-prepared to integrate physical activity into their daily routines. Therefore, physical activity can be integrated into daily instruction. In addition, the follow-up plans show that participants have considered various factors. Therefore, to ensure that these habits do not fade after the mentoring activities end, a simple monitoring mechanism is needed. Several follow-up plans have already included parents as part of the follow-up process through simple activities that can be repeated at home; thus, a home-school communication model needs to be developed to reinforce physical activity within the family environment. Future research is recommended to use instruments with a wider range of difficulty levels and cognitive levels, including items that can measure the ability to apply and analyze learning cases. In addition, it is also recommended to use a more robust design by measuring self-efficacy before and after the mentoring.

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CONCLUSION

The mentoring activities to foster the adoption of "Joint Daily Activity" were carried out through the presentation of materials, practice of "Joint Daily Activity" activities, evaluation, assessment of teachers' self-efficacy, and the assignment of follow-up action plans. The evaluation results showed a significant difference between the pre- and post-intervention knowledge scores, with an average increase of 5.23 points. The results of the teacher self-efficacy questionnaire fell into the "very high" category, with an average score of 4.9 out of 5, while the follow-up plans received an average score of 26.67 out of 28, with all falling into the "very good" category. The main contributions of this mentoring program were an increase in teachers' readiness and confidence, as well as the development of a plan for establishing a routine of physical activity that is ready for implementation. However, the self-efficacy questionnaire was administered only at the end of the program, and the follow-up plan continues to assess the quality of planning rather than its implementation; furthermore, no direct measurements have been taken of changes in the children's motor skills or physical activity. Therefore, it is recommended that future programs provide ongoing support for the implementation and monitoring of the follow-up plan, using a more appropriate design, and incorporate measures of children's outcomes. Future development could focus on a "Joint Daily Activity" model that integrates teacher competencies, habit-forming practices, parental involvement, monitoring, and the assessment of children's motor development.

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