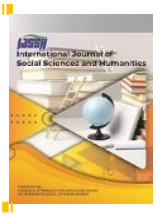

International Journal of Social Sciences and Humanities
Vol. 4 No. 2, Juni 2026, pages: 1099-1112
e-ISSN: 2985-6469
https://ejournal.45mataram.ac.id/index.php/ijssh

Enhancing Fine Motor Skills Through a Task-Oriented Training-Based Collage Play Method for Hyperactive Children Aged 4–5 Years at TK Negeri 1 Teluk Pandan

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Article History

Manuscript submitted:
18 April 2026
Manuscript revised:
14 Mei 2026
Accepted for publication:
16 Juni 2026

Keywords

ADHD;
Collage;
Fine Motor Skills;
Task Oriented Training;
Classroom Action Research;
Hyperactive Children

Abstract

This study aimed to improve the fine motor learning process and skills of hyperactive children aged 4–5 years through a collage play method based on Task-Oriented Training (TOT) at TK Negeri 1 Teluk Pandan. The study employed Classroom Action Research using the Kemmis and McTaggart model, conducted in two cycles comprising planning, action, observation, and reflection. The TOT-based collage activities included task orientation, demonstration, guided practice, independent practice, and feedback with reinforcement. Two hyperactive children participated in the study. Data were collected through observation, documentation, and field notes, then analysed using descriptive quantitative and qualitative techniques. The findings showed increased attention, participation, and engagement during learning, alongside improvements in eye–hand coordination, pinching ability, accuracy in attaching materials, and neatness. Subject GF's fine motor score increased from 45% at the pre-action stage to 60% in Cycle I and 90% in Cycle II, while subject AZ improved from 40% to 65% and 95%, respectively. These findings indicate that TOT-based collage play effectively improves the fine motor learning process and skills of young hyperactive children.

Contents

Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common neurodevelopmental disorders, characterized by persistent patterns of inattention, hyperactivity, and

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impulsivity that interfere with children's ability to sustain attention, regulate their behavior, and participate effectively in learning activities (American Psychiatric Association, 2013). Children with ADHD frequently experience difficulties maintaining concentration, following instructions, completing tasks, and controlling their motor behavior, which can adversely affect both their academic achievement and everyday functional skills (Barkley, 2015; DuPaul & Stoner, 2014). In early childhood education, these characteristics present particular challenges because learning is predominantly delivered through play-based activities that require sustained attention, coordination, and the ability to follow sequential tasks. Play constitutes the primary medium through which young children construct knowledge, develop cognitive abilities, and enhance their social and motor skills (Piaget, 1962; Vygotsky, 1978). However, children with ADHD often struggle to remain engaged in activities that require sustained concentration and precision. Consequently, instructional practices should incorporate active, engaging, and experiential learning strategies that promote learning by doing to maintain children's active participation throughout the learning process (Suyadi, 2010).

One developmental domain requiring particular attention among children with ADHD is fine motor skill development. Fine motor skills refer to the ability to coordinate small muscle movements, particularly those involving the fingers and hand–eye coordination, which are essential for everyday tasks such as writing, cutting, pasting, drawing, and threading beads (Sumantri, 2005). By the age of 4–5 years, children are generally expected to demonstrate increasingly refined hand coordination, enabling them to perform these activities with greater accuracy and control (Santrock, 2011). However, children with ADHD often experience delays in fine motor development due to difficulties sustaining attention, limited self-regulation, and a tendency to perform tasks impulsively and hastily (Abidin, 2016). Preliminary classroom observations conducted at TK Negeri 1 Rantau Pulung indicated that children's fine motor development had not yet reached the expected developmental level. Among the 15 children observed, most experienced difficulties with hand coordination and precision when completing fine motor tasks. Two children exhibiting characteristics consistent with ADHD became the primary focus of this study because they demonstrated more pronounced challenges, including difficulty sustaining attention, impulsive behavior, limited task accuracy, and an inability to complete fine motor activities according to instructional directions. These findings suggest that the instructional practices currently implemented have not fully accommodated the learning needs of children with ADHD, highlighting the need for more adaptive and individualized instructional strategies.

One learning activity with considerable potential for enhancing fine motor skills is collage-making. Collage activities involve selecting, arranging, and attaching various materials onto a designated surface, thereby promoting hand–eye coordination, manual dexterity, concentration, precision, and finger control (Sumanto, 2005). Wulandari (2020) reported that collage activities effectively improve fine motor skills among young children. To better align this activity with the learning characteristics of children with ADHD, the present study integrates collage-making with the Task-Oriented Training (TOT) approach. Task-Oriented Training emphasizes structured, repetitive, and progressively sequenced practice of meaningful tasks to develop functional skills through direct experience (Winstein et al., 2014). This approach enables children to acquire new skills through successive stages of demonstration, imitation, guided practice, and reinforcement, thereby facilitating gradual and sustainable skill development. Previous studies have demonstrated that collage activities contribute positively to fine motor development in early childhood, while Task-Oriented Training has been widely employed to improve motor performance through repetitive, goal-directed practice. Nevertheless, research specifically integrating collage-making activities with the Task-Oriented

Training approach to enhance fine motor skills among 4–5-year-old children with characteristics of ADHD remains limited. Furthermore, few studies have investigated the implementation of these combined approaches using a Classroom Action Research (CAR) design within the context of kindergarten education.

Based on these considerations, the present study aims to examine the implementation of a Task-Oriented Training-based collage method in improving the fine motor skills of 4–5-year-old children with ADHD at TK Negeri 1 Rantau Pulung. This study is expected to provide empirical evidence regarding the effectiveness of this instructional strategy while offering an alternative approach for teachers to design more adaptive learning experiences that support fine motor development in early childhood education settings.

Methods

This study employed a Classroom Action Research (CAR) design based on the model developed by Kemmis and McTaggart, which consists of four cyclical stages: planning, acting, observing, and reflecting (Kemmis & McTaggart, 1988). The research was conducted over two action cycles during the second semester of the 2025/2026 academic year at TK Negeri 1 Teluk Pandan. The intervention involved the implementation of a Task-Oriented Training (TOT)-based collage method, an instructional approach that emphasizes progressive, systematic, and repetitive task practice to enhance children's fine motor skills. Each cycle was refined based on the reflection and evaluation of the preceding cycle to improve the effectiveness of the instructional intervention. The participants consisted of 15 children aged 4–5 years, including two children, identified by the initials GF and AZ, who exhibited characteristics of Attention-Deficit/Hyperactivity Disorder (ADHD) and demonstrated delays in fine motor skill development. These two children served as the primary participants for evaluating the effectiveness of the intervention. Learning activities were organized into six sequential stages: orientation, demonstration, guided practice, independent practice, reinforcement, and reflection. The instructional intervention focused on improving hand–eye coordination, the ability to use tools and materials appropriately, precision in task performance, and children's independence in completing collage-making activities.

Data were collected using performance-based assessments, classroom observations, documentation, and field notes. The performance assessment rubric was designed to evaluate children's fine motor skills across four domains: hand–eye coordination, the use of tools and materials, precision, and independence. Observation checklists were used to document children's engagement, attention, active participation, and involvement throughout the Task-Oriented Training-based collage activities. Documentation and field notes were employed to complement and verify data related to the implementation of the intervention. The data were analyzed using both quantitative and qualitative descriptive approaches. Quantitative analysis involved calculating individual scores and percentages of fine motor skill achievement for each action cycle, which were subsequently classified into four developmental categories: Not Yet Developed (NYD), Beginning to Develop (BD), Developing as Expected (DAE), and Very Well Developed (VWD). Qualitative data were analyzed using the interactive procedures of data reduction, data display, and conclusion drawing, based on evidence gathered from classroom observations, documentation, and field notes. This analysis was conducted to provide a comprehensive description of the progression of children's fine motor skills throughout the implementation of the intervention.

Results and Discussions

This study was conducted at TK Negeri 1 Teluk Pandan, located in Teluk Pandan District, East Kutai Regency, East Kalimantan, Indonesia, during the second semester of the 2025/2026 academic year. The kindergarten implements the Merdeka Curriculum, which emphasizes a play-based learning approach to support children's holistic development across all developmental domains. The research participants consisted of two children aged 4–5 years from Group A, identified by the initials GF and AZ. They were purposively selected based on preliminary classroom observations, which indicated characteristics consistent with Attention-Deficit/Hyperactivity Disorder (ADHD) accompanied by delays in fine motor skill development. Both children experienced difficulties sustaining attention, were easily distracted, tended to complete tasks impulsively and hastily, and demonstrated limited hand–eye coordination during activities requiring precision, such as grasping small objects with tweezers, applying glue, and attaching collage materials accurately according to a predetermined pattern. These baseline conditions provided the rationale for implementing the Task-Oriented Training (TOT)-based collage method as an instructional intervention aimed at improving the fine motor skills of both participants.

1. Baseline Condition (Pre-Cycle)

The pre-intervention stage was conducted to establish a baseline profile of the children's fine motor skills prior to the implementation of the Task-Oriented Training (TOT)-based collage method. Data were collected through classroom observations, documentation, and field notes during regular learning activities. The findings indicated that both research participants experienced difficulties performing tasks requiring hand–eye coordination, such as cutting, applying glue, and attaching collage materials according to a designated pattern. In addition, both children exhibited behavioral characteristics commonly associated with Attention-Deficit/Hyperactivity Disorder (ADHD), including being easily distracted, having difficulty sustaining attention, and completing tasks impulsively and hastily. As a result, their work was often untidy and required substantial teacher assistance.

Before selecting the research participants, the researcher conducted classroom observations involving all 15 children in Group A at TK Negeri 1 Teluk Pandan. The observations revealed that most children had achieved fine motor development appropriate for their age, whereas two children continued to demonstrate delays in fine motor skill acquisition. These two children were subsequently selected as the primary participants because they exhibited characteristics consistent with ADHD accompanied by difficulties in fine motor development. Their baseline performance provided the foundation for designing and implementing the Task-Oriented Training (TOT)-based collage intervention during Cycles I and II.

The pre-intervention assessment further showed that, overall, the fine motor skills of the children in Group A had developed satisfactorily. Most children were classified within the Very Well Developed (VWD) and Developing as Expected (DAE) developmental categories. In contrast, the two research participants, GF and AZ, demonstrated substantially lower levels of fine motor performance than their peers. GF achieved a performance score of 45%, corresponding to the Beginning to Develop (BD) category, while AZ obtained a score of 40%, placing the child in the Not Yet Developed (NYD) category. Both participants experienced persistent difficulties coordinating hand and eye movements, manipulating learning tools and materials, and accurately attaching collage materials according to the prescribed pattern.

Classroom observations also indicated that neither participant was able to engage optimally in the learning activities. Throughout the instructional sessions, GF and AZ were easily distracted, struggled to maintain attention, and required frequent teacher guidance and repeated instructions to complete assigned tasks. Furthermore, both children tended to perform activities hastily, resulting in work that lacked accuracy and neatness and did not fully meet the intended learning objectives. These conditions limited their opportunities to practice and refine fine motor coordination effectively.

Based on these baseline findings, it was concluded that both participants required more structured and targeted stimulation through learning activities that were engaging, systematic, and responsive to the characteristics of children with ADHD. Therefore, the Task-Oriented Training (TOT)-based collage method was selected as the instructional intervention because it provides children with opportunities for progressive, repetitive, and hands-on practice, while simultaneously promoting sustained attention, active participation, and the development of fine motor skills throughout the learning process.

2. Implementation of the Action: Cycle I

Before implementing the intervention, the researcher prepared the teaching module, collage media and materials, observation instruments, and coordinated with the school principal, who served as the observer, to ensure the readiness of the instructional process. The intervention in Cycle I was conducted over two instructional sessions using a collage-based Task-Oriented Training (TOT) approach. The learning activities were structured into the stages of task orientation, modeling (demonstration), guided practice, independent practice, and feedback and reinforcement. Throughout the intervention, the two research participants continued learning alongside their classmates but received more intensive support tailored to their individual characteristics and learning needs.

During the first session, the activities focused on introducing collage-making and familiarizing the children with the stages of Task-Oriented Training (TOT). The teacher demonstrated how to pick up collage materials, apply glue, and paste the materials according to the designated pattern before guiding the children through the activity until they were able to attempt the task independently. The second session emphasized improving accuracy, hand-eye coordination, and independence in completing collage activities. The teacher gradually provided guidance and reinforcement to help the children follow instructions more effectively and complete each task according to the prescribed sequence.

Overall, the implementation of Cycle I proceeded smoothly and resulted in positive changes in both research participants. The children became more interested in participating in the learning activities, were able to sustain their attention for longer periods, and demonstrated improvements in hand-eye coordination while picking up, gluing, and attaching collage materials. Nevertheless, both participants still required assistance during several stages of the activity, particularly in maintaining concentration and completing tasks independently. Consequently, the reflections from Cycle I served as the basis for refining the intervention in Cycle II.

Observation results indicated that the implementation of the collage-based Task-Oriented Training (TOT) approach in Cycle I was carried out according to the planned instructional stages. Classroom observations were conducted by the school principal using an instructional implementation observation checklist covering the introduction, task orientation, modeling, guided practice, independent practice, feedback and reinforcement, classroom management, and lesson closure. Overall, the teacher successfully implemented each instructional stage, although several

aspects still required improvement, particularly in managing the children's attention and providing more individualized support for the research participants.

Throughout the learning process, the teacher effectively utilized collage media and systematically implemented the stages of Task-Oriented Training, which increased the children's interest in participating in the activities. However, in several instances, repeated instructions and more intensive guidance were still necessary to help both participants maintain attention and complete the assigned tasks according to the prescribed procedures. These observation findings became the basis for refining instructional implementation in Cycle II to enhance the effectiveness of the collage-based Task-Oriented Training approach.

Table 1. Teacher Observation Results on Instructional Implementation Fidelity in Cycle I

Task-Oriented Training (TOT) Stage	Meeting 1	Meeting 2	Mean	Percentage
Task Orientation	5	6	5,5	68,8%
Modeling	5	7	6,0	75,0%
Guided Practice	5	6	5,5	68,8%
Independent Practice	7	7	7,0	87,5%
Feedback and Reinforcement	7	7	7,0	87,5%
Total Score	29	33	31,0	77,5%
Implementation Fidelity	72,5%	82,5%	-	77,5%

Based on Table 1, the observation results indicate that the implementation of the collage-based Task-Oriented Training (TOT) approach during Cycle I showed satisfactory progress. In the first meeting, the teacher obtained a score of 29 (72.5%), which was categorized as Good. In the second meeting, the score increased to 33 (82.5%), categorized as Very Good. The average implementation fidelity across both meetings reached 77.5%. These findings indicate that the instructional process was generally implemented according to the prescribed stages of the collage-based Task-Oriented Training (TOT) approach. The teacher adequately carried out each instructional phase, beginning with task orientation, modeling, guided practice, independent practice, and concluding with feedback and reinforcement. In addition, the teacher effectively utilized collage materials and instructional media, enabling the children to participate more actively and enthusiastically throughout the activities. Nevertheless, several aspects still required improvement, particularly the provision of individualized assistance for the two children exhibiting hyperactive characteristics. Furthermore, instructional time allocation and task difficulty should be better adjusted to the children's abilities to optimize the implementation of each Task-Oriented Training (TOT) stage.

Table 2. Children's Participation Observation Results in Cycle I

Participant	Meeting 1	Meeting 2	Mean
GF	67%	71%	69%
AZ	69%	73%	71%

Based on Table 2, the observation results demonstrate an increase in the participation of both research participants during the collage-based Task-Oriented Training (TOT) activities in Cycle I. Participant GF showed an increase in participation from 67% during the first meeting to 71% during the second meeting, with an average participation rate of 69%. Similarly, participant AZ improved from 69% in the first meeting to 73% in the second meeting, resulting in an average of 71%. These findings indicate that both participants began responding positively to the learning activities. The

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children became more enthusiastic, followed the teacher's instructions more effectively, and demonstrated greater involvement in manipulating collage materials and completing the assigned tasks. However, both participants continued to require individualized guidance and reinforcement to further improve their participation and fine motor skill development in the subsequent cycle.

Participant GF responded positively to the collage activities, showing enthusiasm when selecting and attaching collage materials to the prepared patterns. Nevertheless, greater teacher guidance was still required to improve the accuracy of material placement, hand-eye coordination, and the neatness of the completed work. Meanwhile, participant AZ also demonstrated positive engagement throughout the learning process. AZ became increasingly capable of following the teacher's instructions, manipulating collage materials more independently, and improving fine motor actions such as grasping, picking up, and attaching materials to the designated patterns. In addition, AZ exhibited greater classroom participation and self-confidence while completing the assigned activities.

Table 3. Fine Motor Skill Performance in Cycle I

No.	Participant	Maximum Score	Obtained Score	Percentage	Category
1	GF	20	12	60%	Developing as Expected (BSH)
2	AZ	20	13	65%	Developing as Expected (BSH)

Based on Table 3, both research participants demonstrated improvements in fine motor skills following the implementation of the collage-based Task-Oriented Training (TOT) intervention. Participant GF obtained 12 out of a maximum score of 20, corresponding to 60%, whereas participant AZ obtained 13 out of 20, corresponding to 65%. Both participants were classified in the Developing as Expected (BSH) category. The improvement was reflected in enhanced hand-eye coordination, more effective finger control when manipulating collage materials, greater accuracy in attaching materials according to the designated patterns, and neater finished products compared with the pre-intervention condition. Nevertheless, both participants still required teacher assistance during several stages of the activity, particularly in maintaining accuracy and producing neat work.

Table 4. Comparison of Pre-Intervention and Cycle I Results

No.	Participant	Pre-Intervention	Cycle I	Improvement
1	GF	45%	60%	15%
2	AZ	40%	65%	25%

The findings from Cycle I indicate that the collage-based Task-Oriented Training (TOT) approach began to produce positive effects on the fine motor skills of both research participants. GF improved from 45% to 60%, while AZ improved from 40% to 65%. These improvements were evident in enhanced hand-eye coordination, more effective finger movements when manipulating and attaching collage materials, and greater neatness in the completed artwork compared with the initial condition. Despite these encouraging improvements, neither participant had yet achieved the predetermined success criteria. Consequently, the intervention was continued into Cycle II. The reflection findings indicated that both children still required more intensive individualized guidance, repeated demonstrations, more consistent reinforcement, and a more engaging learning environment

to help them sustain attention, develop greater independence, and complete collage activities more effectively.

3. Implementation of the Action: Cycle II

The intervention implemented in Cycle II was designed based on the reflections from Cycle I, with several refinements made to improve the instructional process. These improvements included the use of more engaging collage materials and media, simplification of collage patterns to match the children's developmental abilities, increased individualized support, clearer and repeated demonstrations, and more consistent feedback and motivational reinforcement. The intervention continued over two instructional sessions following the stages of Task-Oriented Training (TOT), namely task orientation, modeling, guided practice, independent practice, and feedback with reinforcement. Throughout the learning activities, both research participants remained integrated within the regular classroom alongside their peers while receiving individualized guidance tailored to their specific learning needs.

The implementation results demonstrated that both participants became more actively engaged and self-confident than they had been during Cycle I. They were able to sustain their attention for longer periods, follow the teacher's instructions more accurately, and exhibit improved hand-eye coordination when picking up, applying, and attaching collage materials. In addition, their independence in completing the assigned tasks increased, as evidenced by the reduced level of teacher assistance required throughout the learning activities. The use of more attractive instructional materials combined with repeated demonstrations enabled the children to understand each stage of the activity more easily.

Classroom observations further indicated that the implementation of the collage-based Task-Oriented Training (TOT) approach in Cycle II was more effective than in Cycle I. The teacher successfully implemented each instructional stage according to the planned lesson design, while both participants demonstrated more positive responses, greater enthusiasm, and higher levels of active engagement throughout the activities. The refinements introduced in Cycle II resulted in noticeable improvements in attention, participation, accuracy, and fine motor performance, indicating that the intervention was more effective in achieving the objectives of the study.

Table 5. Teacher Observation Results in Cycle II

Task-Oriented Training (TOT) Stage	Meeting 1	Meeting 2	Mean	Percentage
Task Orientation	8	8	8,0	100,0%
Modeling	7	8	7,5	93,8%
Guided Practice	8	8	8,0	100,0%
Independent Practice	6	8	7,0	87,5%
Feedback and Reinforcement	5	8	6,5	81,3%
Total Score	34	40	37,0	92,5%
Implementation Fidelity	85%	100%	-	92,5%

The observation results in Cycle II indicate that instructional implementation improved substantially and reached the Very Good category. The teacher was able to implement every stage of the collage-based Task-Oriented Training (TOT) approach more effectively by providing clearer demonstrations, more intensive individualized guidance, and consistent feedback and motivational reinforcement. Furthermore, the use of more engaging collage materials increased the children's

participation, enthusiasm, and involvement throughout the learning process. Consequently, the intervention in Cycle II was implemented as planned and effectively supported improvements in the fine motor skills of both research participants.

Table 6. Children's Participation Observation Results in Cycle II

Participant	Meeting 1	Meeting 2	Mean
GF	77%	83%	80%
AZ	79%	87%	83%

The observation results from Cycle II demonstrate that both participants showed higher levels of participation during the collage-based Task-Oriented Training (TOT) activities compared with Cycle I. Participant GF improved from 77% in the first meeting to 83% in the second meeting, with an average participation rate of 80%. Likewise, participant AZ increased from 79% to 87%, achieving an average participation rate of 83%. Both participants appeared more actively engaged in following the teacher's instructions, were able to maintain attention for longer periods, and demonstrated greater independence in completing the collage activities. Moreover, their ability to follow demonstrations, manipulate collage materials, cooperate with classmates, and complete tasks according to the instructional sequence improved considerably. These findings suggest that the collage-based Task-Oriented Training (TOT) approach effectively enhanced children's engagement, attention, and classroom participation throughout the learning process.

Table 7. Fine Motor Skill Performance in Cycle II

No.	Participant	Maximum Score	Obtained Score	Percentage	Category
1	GF	20	18	90%	Developing Very Well (BSB)
2	AZ	20	19	95%	Developing Very Well (BSB)

The results of Cycle II indicate substantial improvements in the fine motor skills of both research participants. GF achieved a score of 18 (90%), while AZ obtained 19 (95%), placing both participants in the Developing Very Well (BSB) category. These improvements were reflected in enhanced hand-eye coordination, more effective finger control when grasping and attaching collage materials, greater accuracy in following the designated patterns, and the production of neater and more organized collage work. These findings demonstrate that the collage-based Task-Oriented Training (TOT) approach effectively improves the fine motor skills of hyperactive children through structured, progressive, and developmentally appropriate learning activities tailored to their individual characteristics and educational needs.

Table 8. Comparison of Learning Process Observation Results Between Cycles I and II

Observed Aspect	Cycle I	Cycle II
Teacher Observation	77,5%	92,5%
GF Participation	69%	80%
AZ Participation	71%	83%

As shown in Table 8, all observed aspects improved during Cycle II. Teacher implementation fidelity increased from 77.5% in Cycle I to 92.5% in Cycle II. Likewise, participant GF's participation increased from 69% to 80%, while participant AZ's participation improved from 71% to 83%.

Table 9. Comparison of Fine Motor Skill Performance Between Cycles I and II

Participant	Cycle I	Cycle II	Improvement
GF	60%	90%	30%
AZ	65%	95%	30%

Based on Table 9, both research participants demonstrated substantial improvements in fine motor skills from Cycle I to Cycle II. Participant GF improved by 30 percentage points, increasing from 60% to 90%, while participant AZ also improved by 30 percentage points, rising from 65% to 95%. Both participants successfully met the predetermined criterion for research success, namely achieving a minimum score of 80%. Therefore, the classroom action research was considered successful, and no further intervention cycles were required.

4. Data Analysis and Findings

The observation results indicated that the participation of both participants during the learning process improved from Cycle I to Cycle II. In Cycle I, children's participation was categorized as fair to good, with an average participation rate of 69.8%. Both participants demonstrated enthusiasm for the learning activities, particularly during the task orientation and feedback stages. They were able to pay attention to the teacher's explanations, recognize the collage materials and tools, and express enjoyment of the completed artwork. However, during the modeling, independent practice, and reflection stages, both participants still required repeated guidance and assistance because they were not yet able to complete all learning activities independently. Following the instructional improvements implemented in Cycle II, the average participation rate increased to 82.8%, which fell within the very good category. This improvement was reflected in the children's increased ability to attend to the teacher's explanations, understand the activity procedures, follow demonstrations, and complete the collage tasks more independently. Both participants also demonstrated improved attention, greater confidence while completing the collage activities, and increased willingness to present their work with minimal teacher assistance. More individualized guidance, the use of more engaging instructional materials, and consistent reinforcement helped the children maintain attention and active engagement throughout the learning process.

Individually, GF's participation increased from 69% in Cycle I to 80% in Cycle II, while AZ's participation improved from 71% to 83%. These findings indicate that the collage play method based on the Task-Oriented Training (TOT) approach not only improved fine motor skills but also enhanced children's attention, engagement, and active participation during classroom learning. Thus, the systematic implementation of the Task-Oriented Training stages provided meaningful learning experiences that were well suited to the developmental characteristics of hyperactive children aged 4–5 years. The findings further demonstrated that the fine motor skills of both participants improved progressively across each action cycle. During the pre-intervention stage, the average fine motor skill achievement of the two participants was only 42.5%, which increased to 62.5% in Cycle I and further improved to 92.5% in Cycle II. These results indicate that the collage play method based on Task-Oriented Training (TOT) provided effective stimulation for the development of fine motor skills in hyperactive children. Improvements were observed in eye-hand coordination, finger dexterity when

grasping and attaching collage materials, accuracy in following predetermined patterns, and the neatness of the completed collage products. By the end of the intervention, both participants had achieved the Very Well Developed (BSB) developmental category, indicating that the predetermined success criteria of the study had been successfully achieved.

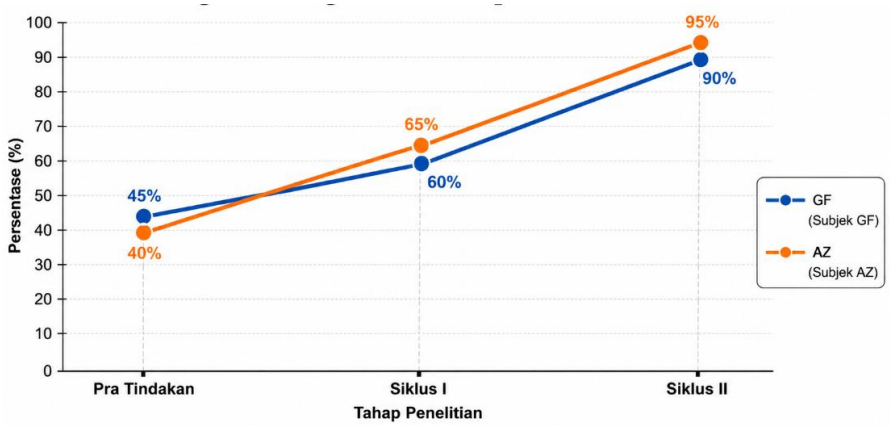

Figure 1. Improvement in Fine Motor Skill Development

In addition to the improvement in fine motor skills, the overall learning process also demonstrated substantial progress. The teacher's implementation fidelity increased from 77.5% in Cycle I to 92.5% in Cycle II, while children's participation during classroom activities improved from an average of 70.0% to 81.5%. These findings indicate that the instructional refinements implemented during the intervention—including more individualized support, clearer demonstrations, the use of more engaging collage materials, and consistent reinforcement—successfully enhanced the children's attention, engagement, and independence throughout the learning activities.

Since all predetermined success indicators had been achieved, the Classroom Action Research was concluded at the end of Cycle II. The findings demonstrate that the Task-Oriented Training (TOT)-based collage play method was effective in improving the fine motor skills of hyperactive children aged 4–5 years. The intervention, which was implemented progressively, systematically, and through task-oriented learning activities, provided children with repeated opportunities to practice according to their individual abilities and developmental needs. Through these activities, the participants not only showed significant improvement in fine motor performance but also demonstrated enhanced attention, participation, accuracy, and independence during the learning process. Therefore, the action hypothesis stating that the implementation of the Task-Oriented Training (TOT)-based collage play method can improve the fine motor skills of hyperactive children was supported by the findings of this study.

5. Discussion

The findings of this study demonstrate that the implementation of the Task-Oriented Training (TOT)-based collage play method effectively improved both the quality of the learning process and the fine motor skills of hyperactive children aged 4–5 years. Improvements were observed progressively across each action cycle. During Cycle I, the participants began to demonstrate better attention and engagement than in the pre-intervention stage, although they still required intensive guidance and support. Following instructional refinements in Cycle II—including the use of more

attractive learning materials, clearer demonstrations, individualized assistance, and consistent reinforcement—the learning process became considerably more effective. The children were able to follow each stage of the activity more systematically, participate more actively, and demonstrate greater independence in completing the collage tasks.

The improvement in the instructional process had a direct impact on the development of the participants' fine motor skills. The average fine motor skill achievement increased from 42.5% during the pre-intervention stage to 62.5% in Cycle I and further improved to 92.5% in Cycle II. These improvements were reflected in enhanced eye-hand coordination, greater dexterity in grasping and attaching collage materials, increased accuracy in following predetermined patterns, and the production of neater and more organized collage work. Furthermore, improvements in both teacher implementation fidelity and children's classroom participation indicate that a more structured learning process provided meaningful opportunities for children to develop their skills through gradual and repeated practice.

These findings are consistent with Sumantri (2005), who argued that fine motor skills develop optimally when children are provided with meaningful and repeated learning experiences. Through the stages of Task-Oriented Training—including task orientation, modeling, guided practice, independent practice, feedback, and reinforcement—the participants engaged in direct hands-on learning experiences that facilitated the gradual development of their motor skills. The present findings also support the developmental theory proposed by Santrock (2011), which emphasizes that fine motor development depends on the coordination of small muscle movements requiring precision, concentration, and eye-hand coordination. Activities such as grasping collage materials, applying glue, and attaching materials to predetermined patterns provided appropriate stimulation for developing these competencies.

From the perspective of Skinner's Behaviorist Theory, the improvement in fine motor skills observed in this study can be explained by the interaction between stimulus, response, and reinforcement. The stimuli consisted of engaging collage activities, varied instructional materials, and step-by-step demonstrations. The children's responses were reflected in increased attention, active engagement, and improved performance in completing each stage of the activities. Consistent reinforcement in the form of praise, encouragement, and appreciation of the children's work motivated them to repeat desirable behaviors during subsequent learning sessions. This systematic reinforcement contributed to increased self-confidence, independence, and persistence in completing assigned tasks.

The findings also reinforce those of Wulandari (2020), who reported that collage activities effectively enhance fine motor skills in early childhood by promoting eye-hand coordination. Similarly, Winstein et al. (2014) demonstrated that the Task-Oriented Training approach effectively improves motor performance by providing structured, goal-oriented, and repetitive task practice. The consistency between these findings suggests that integrating collage activities with the Task-Oriented Training approach represents an appropriate instructional strategy for developing fine motor skills, particularly among children with hyperactive characteristics.

Overall, the findings indicate that the Task-Oriented Training (TOT)-based collage play method not only enhanced fine motor skills but also improved the quality of the learning process by increasing children's attention, participation, independence, and self-confidence throughout classroom activities. The success of the intervention was closely associated with the continuous refinement of instructional practices across the action cycles, particularly through individualized guidance, clearer demonstrations, the use of engaging learning materials, and consistent reinforcement. Therefore, the

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action hypothesis stating that the implementation of the Task-Oriented Training (TOT)-based collage play method can improve the fine motor skills of hyperactive children aged 4–5 years at TK Negeri 1 Teluk Pandan was supported by the findings of this study.

Nevertheless, this study has several limitations. It involved only two research participants and was conducted over a relatively short intervention period. Consequently, future studies are recommended to include a larger number of participants and extend the duration of the intervention to provide more comprehensive evidence regarding the effectiveness of the Task-Oriented Training (TOT)-based collage play method for improving fine motor development among young children with hyperactive characteristics.

Conclusion

Based on the findings of this Classroom Action Research conducted over two action cycles, it can be concluded that the implementation of the Task-Oriented Training (TOT)-based collage play method was effective in improving the fine motor skills of hyperactive children aged 4–5 years at TK Negeri 1 Teluk Pandan. The participants' average fine motor skill achievement increased from 42.5% during the pre-intervention stage to 62.5% in Cycle I and further improved to 92.5% in Cycle II. In addition, both children's participation and the fidelity of instructional implementation showed substantial improvement, indicating that the sequential stages of Task-Oriented Training—including task orientation, modeling, guided practice, independent practice, feedback, and reinforcement—created a more structured, engaging, and developmentally appropriate learning environment for hyperactive children. This instructional approach effectively supported the development of eye-hand coordination, precision, independence, and overall fine motor skills.

The Task-Oriented Training (TOT)-based collage play method can therefore be considered a practical instructional alternative for promoting fine motor development in early childhood education, particularly for children with hyperactive characteristics. Teachers are encouraged to implement structured learning activities accompanied by individualized guidance and positive reinforcement that accommodate each child's developmental needs. Furthermore, schools should provide adequate instructional materials and learning resources to support the effective implementation of this approach. Future research is recommended to involve larger and more diverse samples of participants and to extend the duration of the intervention in order to provide more comprehensive empirical evidence regarding the effectiveness of the Task-Oriented Training (TOT)-based collage play method across a wider range of early childhood educational settings.

Acknowledgements

The researchers would like to express their sincere gratitude to the headteacher, teachers, participating children, and all staff of TK Negeri 1 Teluk Pandan for their support and cooperation throughout the study. Appreciation is also extended to all parties who contributed to the implementation of the Task-Oriented Training-based collage activities and supported the development of fine motor learning for hyperactive children.

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