



ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES
DEPARTMENT OF PSYCHOLOGY

**AN ASSESSMENT OF KNOWLEDGE , ATTITUDE AND PRACTICES OF TEACHERS
ON THE DEVELOPMENT OF FINE MOTOR SKILLS IN PRESCHOOL CHILDREN IN
ADDIS ABABA, GULELE SUB- CITY: THE CASE OF PHASE ACADEMY PRIMARY
SCHOOL**

BY: SEHANI BEKELE

ADVISOR: MOGES AYELE (PhD)

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**A THESIS SUBMITTED TO THE SCHOOL OF EDUCATION AND BEHAVIORAL
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DECLARATION

I, Sehani Bekele a student at Addis Ababa University, College of Education and Behavioral Studies, Department of Psychology, the field of my specialization is Developmental Psychology. As far as my knowledge, I am confident to attest that the originality of my thesis paper to be true. The thesis is the first product of my own work which I did to fulfill the Master of Arts degree in the aforementioned field of specialization and as far as my knowledge is concerned, was not done by anyone else previously. Moreover, I accept full responsibility for the truthfulness of the information presented in my thesis document and for its originality. Finally, all the information that I mentioned in the thesis as evidence, the source is well cited.

Name: Sehani Bekele

Signature: _____

Date: _____

APPROVED BY THE EXAMINING BOARD

Advisor: _____ Signature: _____ Date: _____

Internal Examiner: _____ Signature: _____ Date: _____

External Examiner: _____ Signature: _____ Date: _____

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ACRONYMS/ABBREVIATIONS

DAP: Developmentally Appropriate Practice

ECD: Early Childhood Development

ECCE: Early Childhood Care and Education

ECE: Early Childhood Education

FMS: Fine Motor Skill

FMSD: Fine Motor Skill Development

KG: Kindergarten

NAEYC: National Association for the Education of Young Children

NINDS: National Institute of Neurological Disorders and Stroke

OECD: Organization for Economic Cooperation and Development

OTSBC: Occupational Therapy School-based Consultation

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ABSTRACT

Fine motor skills allow to carry out the execution of crucial tasks in people's daily lives, increasing their independence and self-esteem. In the school context, teachers play a crucial role in fostering fine motor development in early childhood through various strategies and activities. This study, therefore, aims to assess the knowledge, attitudes, and practices of preschool teachers at Phase Academy Primary School in Addis Ababa, Gulele Sub-City, regarding the development of fine motor skills in preschool children. A descriptive qualitative approach was used to deeply understand this situation. Data were collected through interviews, observation and document reviews. Through qualitative interviews and thematic analysis, the study explores teachers' understanding of fine motor skills, their observations of children's fine motor development, the methods and interventions they employ, and the challenges they encounter. The results show that while teachers possess a basic understanding of fine motor skills, there are significant gaps in their knowledge, particularly concerning developmental milestones and distinguishing fine motor skills from other developmental areas. Teachers observed various difficulties in students' fine motor skills, such as challenges with tasks like tying shoes, buttoning clothes, using scissors, and handwriting. The methods used to develop these skills included cutting with scissors, coloring, and ball throwing, but were often hindered by a lack of formal training and resources. Additionally, the study highlights the absence of a dedicated national strategy and specific school-level protocols for fine motor development. Despite these challenges, teachers recognize the critical role of fine motor skills in children's overall learning and development. The study concludes with recommendations for enhanced teacher training, resource provision, and greater parental involvement, as well as suggestions for future research to further explore effective strategies for fine motor skills development in early childhood education.

Keywords: *Fine Motor Skills, Pre-school children, Pre-school education, pre-school Teachers, Knowledge, Attitude, Practice, Assessment, Phase Academy Primary School, Addis Ababa, Ethiopia, Qualitative study, thematic analysis*

CHAPTER ONE: INTRODUCTION

1.1 Background

Fine motor skills refer to the coordination of small muscles, primarily in the hands and fingers, which are crucial for performing tasks such as writing, buttoning, and using utensils (Lust et al., 2011). These skills are fundamental not only to a child's academic success but also to their overall development, enabling them to engage in essential manual activities required during early education (Case-Smith, 2002). Research shows that well-developed fine motor skills lay a strong foundation for lifelong learning, with significant implications for broader social and economic development (Heckman, 2008; Melhuish et al., 2015).

The development of fine motor skills occurs in stages throughout early childhood. During infancy (0-12 months), children typically begin grasping objects and developing a pincer grasp. As toddlers (1-3 years), they progress to activities such as stacking blocks and scribbling. By the preschool years (3-5 years), children refine their skills with tasks like cutting with scissors and drawing shapes, and by early primary school (5-7 years), they are expected to perform more complex activities such as writing letters and tying shoelaces (Cameron et al., 2020). The period from birth to six years is particularly critical for children's motor development and overall learning experiences, as growth and exploration during this time shape their future abilities (Zimmer et al., 2004; Derman et al., 2020).

Fostering fine motor development in early childhood is essential for children's overall growth. Various strategies have been recommended, including early intervention and the integration of play-based activities (Lust et al., 2011; Cameron et al., 2020). These strategies are effective for improving fine motor outcomes and ensure that children with developmental difficulties receive consistent practice and reinforcement. For instance, Saraswati (2022) highlights the benefits of using simple, everyday materials as tools for fine motor activities like grasping and shaping. Moreover, the Montessori Method emphasizes practical life activities that enhance fine motor development through engaging, structured tasks (Gici & Setiyono, 2023). Educational toys, like busy boards, have also proven to be beneficial in promoting fine motor skills through interactive play (Bahri et al., 2023). Furthermore, structured motor skill intervention programs, particularly in school settings, have been found to yield positive effects on children's fine motor development

(Strooband et al., 2020). However, challenges such as limited educator support can hinder progress (Mu'ammam et al., 2023), underlining the importance of resourcefulness, structured activities, and strong teacher involvement.

Preschool teachers play a critical role in fostering fine motor skills. Research suggests that motivational techniques, such as greetings, interactive play, and rhymes, are effective in creating joyful and engaging classroom environments, promoting both cognitive and motor development (Rai et al., 2022). Teacher development is equally important for academic performance and fostering positive attitudes in students (Kurniati et al., 2020). Additionally, parenting styles significantly impact child development; effective parenting, which includes clear communication, recognition of achievements, and support for independence, can greatly influence preschoolers' fine motor growth (Arisma, 2020). However, balancing authoritative and authoritarian approaches in fostering practices remains a challenge (Kurniati et al., 2020). In summary, integrating motivational strategies, supportive parenting, and effective teacher development can enhance preschool education, benefiting children's cognitive, emotional, and motor development (Rai et al., 2022; Kurniati et al., 2020; Arisma, 2020).

Delays in fine motor development can stem from various factors, including limited opportunities for play, inadequate play environments, and excessive parental protection that restricts children's physical activities (Hashim, 2016). Health issues such as low birth weight and environmental factors like poverty and lack of awareness about child care are also significant risk factors (Gokak & Korawar, 2022; Araujo et al., 2017). Fine motor skills are closely linked to cognitive and social abilities, and delays in these skills can indicate broader developmental concerns (Burr & Choudhury, 2022). Thus, addressing these multifaceted issues is crucial for fostering optimal fine motor development in early childhood.

Delays in fine motor skills can have profound consequences for children's cognitive, social, and physical development. Research suggests that 12-16% of children worldwide experience developmental delays, with fine motor skills being particularly affected (Rosmayanti et al., 2023). Fine motor delays are closely tied to cognitive development, as they can predict social and cognitive skills in young children (Burr & Choudhury, 2022). Children with fine motor disabilities may struggle with daily tasks, which can hinder their independence and self-esteem (Burr &

Choudhury, 2022). Environmental factors, such as limited access to play opportunities and insufficient parental awareness, can exacerbate these delays (Hashim, 2016). Additionally, health conditions like HIV have been associated with increased risks of psychomotor delays (Kalla et al., 2022), further complicating the developmental landscape for affected children. Addressing fine motor delays is thus essential for fostering overall child development and well-being (Lin et al., 2014).

Preschool education offers a reliable setting for addressing delays in fine motor skill development. With many children enrolled in preschool from an early age, there is growing recognition that fine motor skill development should be a central focus of daily activities (OECD, 2016; Marr et al., 2003). In this school setting, teachers play a pivotal role in promoting fine motor development through a variety of strategies and activities. Research highlights that teachers serve as facilitators, role models, and mentors, particularly in creative activities like finger painting, which actively engage children and enhance their fine motor skills (Khasanah et al., 2023).

In Ethiopia, the development of fine motor skills in preschool children remains a critical yet underexplored area of early childhood education. Preschool teachers are tasked with fostering these essential skills, which are foundational for children's overall development and future academic success. However, existing research reveals significant gaps in teacher training, awareness, and practices regarding fine motor skill development. The study by Abraha and Binyam (2022) highlights that the current teacher training curriculum in Ethiopia tends to focus heavily on subject-specific content, often neglecting a holistic approach to child development. This results in teachers being ill-prepared to foster skills like fine motor development, which requires specialized knowledge and classroom strategies. Moreover, the inadequate pedagogical focus on creating inclusive environments exacerbates this issue, particularly for children with special needs (Tesema et al., 2022). Although some teachers may recognize the importance of fine motor skills, a lack of professional development and limited resources hinder their ability to implement effective practices (Farizan & Noor, 2019).

In Addis Ababa, these challenges are further reflected in the scarcity of research on fine motor development in preschool settings. While some activities that promote fine motor skills, such as puzzles and crafts, are practiced, there is little focused investigation on how teachers are equipped

to nurture these skills systematically (Defi et al., 2024). For example, Mizan et al. (2024) found that only 35.5% of preschool teachers had adequate knowledge of Autism Spectrum Disorder (ASD), highlighting broader gaps in understanding child development and inclusive education. Even teachers with positive attitudes towards inclusive practices often lack the preparedness to support fine motor development for children with diverse learning needs.

The selected school, Phase Academy Primary School in Gulele Sub-City, mirrors many of the national trends highlighted in the existing literature. Preliminary observations indicate that teachers at this school, like others in Addis Ababa, face similar challenges in fostering fine motor skills due to limited training, resources, and awareness. While the school engages children in some fine motor activities, the depth of teacher knowledge and the consistency of their practices in supporting fine motor development have not been systematically studied.

Given the irreplaceable role that teachers play in promoting fine motor development, it is essential to investigate their current knowledge, attitudes, practices, and challenges in this area. Understanding these aspects is crucial for identifying effective methods to promote fine motor skills and for providing recommendations for future research and interventions in schools like Phase Academy Primary School in Addis Ababa, Gulele Sub-City, and similar settings across the Addis Ababa city administration. Therefore, the purpose this study, titled "An Assessment of Knowledge, Attitude, and Practices of Teachers on the Development of Fine Motor Skills in Preschool Children in Addis Ababa, Gulele Sub-City: The Case of Phase Academy Primary School," is to evaluate the knowledge, attitudes, and practices of teachers concerning fine motor skill development in preschool children and to assess the efficacy of motor skill intervention programs in these settings.

1.2 Statement of the Problem

Fine motor skills are essential for tasks requiring manual dexterity, such as writing, using scissors, and handling small objects. These skills are fundamental to a child's academic success and overall development, particularly in the early years of education (Heckman, 2008; Cameron et al., 2020). Despite this, many preschool children face significant challenges in developing fine motor skills, which can adversely affect their academic performance and self-esteem (Case-Smith, 2002; Melhuish et al., 2015).

While the importance of fine motor skills is widely acknowledged, there are significant gaps in the screening and intervention processes within preschool settings. Many educational institutions lack comprehensive mechanisms for identifying children who struggle with fine motor tasks, leading to delayed or inconsistent support (Lust et al., 2011). These delays exacerbate the problem, resulting in difficulties during later stages of education and affecting children's ability to perform essential academic and social tasks.

A substantial number of preschoolers experience difficulties with activities like writing on lines, using scissors, and manipulating small objects. These challenges are often compounded by a lack of teacher training and inadequate resources, which hinder effective intervention (Hammerschmidt & Sudsawad, 2004; Besharov & Call, 2008). Socioeconomic disparities also influence the level of support children receive at home, contributing to inequalities in fine motor skill development (Chiu et al., 2002).

Current interventions are often fragmented and uncoordinated, further complicating efforts to address fine motor skill delays. This lack of a unified approach highlights the need for comprehensive strategies that integrate teacher training, curriculum design, and home support (Case-Smith, 2002). In Addis Ababa, while programs like "The Future Hope of Addis" aim to enhance early childhood development, specific challenges related to fine motor skill development have not been sufficiently researched. To address these gaps, there is a need for a focused investigation into the nature and extent of fine motor skill difficulties, the effectiveness of current practices, and the development of integrated, evidence-based strategies to improve support for preschool children. Thus, this study aims to assess the knowledge, attitudes, and practices of teachers concerning fine motor skill development in preschool children and to assess the efficacy of motor skill intervention programs in these settings.

1.3. Objective of the Study

1.3.1. General Objective

The primary objective of this study is to investigate the knowledge, attitudes, practices, and challenges of preschool teachers at Phase Academy Primary School in Addis Ababa concerning

the development of fine motor skills in children, with the aim of providing recommendations for enhancing teacher training and classroom practices to better support fine motor development.

1.3.2. Specific Objectives

1. To assess the level of knowledge that preschool teachers at Phase Academy Primary School have regarding the development of fine motor skills in children.
2. To explore the attitudes of these teachers towards the importance of fine motor skills in early childhood development.
3. To identify the methods and practices used by teachers to develop fine motor skills in preschool children.
4. To provide recommendations on how to enhance teacher training and classroom practices to better support the development of fine motor skills in preschool children.

1.4. Research Questions

1. What is the level of knowledge among preschool teachers at Phase Academy Primary School regarding the development of fine motor skills in children?
2. What are the attitudes of these teachers towards the importance of fine motor skills in early childhood development?
3. What methods and practices do teachers use to develop fine motor skills in preschool children?
4. What recommendations can be made to enhance teacher training and classroom practices to better support the development of fine motor skills in preschool children?

1.5. Significance of the Study

The development of fine motor skills is crucial for young children's academic success and overall development. These skills, which include writing, drawing, and cutting, are foundational for engaging in educational tasks and completing everyday activities independently, such as dressing and feeding. By studying fine motor development, this research addresses a critical gap in understanding how to enhance these skills, thereby improving academic performance and boosting the confidence and self-esteem of preschool children.

The significance of this study lies in its potential to provide teachers with the knowledge and tools needed to identify and support children who struggle with fine motor tasks. Early identification and intervention are essential for preventing long-term difficulties, allowing for timely support that can significantly improve a child's ability to perform tasks that are essential for academic success and daily living. Given that teachers are often the first to observe developmental delays, the study emphasizes the importance of equipping them with effective strategies and resources to address these challenges.

The research findings have practical implications for educators, parents, and caregivers, offering insights into creating customized interventions that can be implemented both in the classroom and at home. By focusing on fine motor development at Phase Academy Primary School in Addis Ababa, the study provides a context-specific understanding that can be applied to similar educational settings. The results of this research not only contribute to improving children's fine motor skills but also serve as a foundation for future studies aimed at refining and expanding intervention strategies.

Furthermore, the study highlights the importance of supporting fine motor development as a means of enhancing overall student achievement in future grades. As educational standards continue to rise, particularly in the area of writing, the development of fine motor skills becomes increasingly important. This research underscores the need for dedicated time and resources to support the fine motor development of preschool children, ensuring they are well-prepared for the demands of elementary education and beyond. Ultimately, the study's findings have the potential to inform educational practices and policies, leading to better outcomes for children who face challenges in this critical area of development.

1.6. Scope of the Study

This study focuses on assessing teachers' knowledge and attitudes regarding the development of fine motor skills in preschool children at Phase Academy Primary School, situated in Addis Ababa's Gulele Sub-City. It specifically targets ten teachers from this institution, aiming to understand their grasp of fine motor skill development and the methods they employ to foster these skills in young children. The research is confined to this particular school, allowing for an in-depth

exploration of knowledge, attitude and practices of teachers in promoting fine motor development of pre-school children within this localized educational context.

The scope of the study covers several thematic areas: the level of teachers' knowledge about fine motor versus gross motor skills; the observed variations in fine motor development among preschool children; the effectiveness of current interventions such as play-based activities, specialized tools, and individualized support; and recommendations for enhancing teacher training, parental involvement, and resource allocation. The study uses a qualitative research approach, utilizing semi-structured interviews to gather detailed data on teachers' perspectives and practices. However, the study has certain limitations. It is restricted to a single educational institution, which may limit the generalizability of the findings to other schools or regions. Additionally, the reliance on teacher interviews could introduce subjectivity into the reported knowledge and attitudes. Despite these limitations, the study provides valuable insights into fine motor skill development in a specific educational setting, offering implications for improving early childhood education practices.

1.7. Operational Definitions of Variables

In the context of this study,

1.7.1. Preschool Children: Preschool children refer to young learners, typically between the ages of 3 to 5 years old (Allen, 1979). In the context of this study, the term refers to children who are enrolled in the preschool program at Phase Academy Primary School. These children are at a developmental stage where fine motor skills are rapidly emerging and being refined, and they are the primary subjects of the study.

1.7.2. Fine Motor Skills: Fine motor skills refer to the coordination of small muscles and the ability to perform precise movements using small muscles, particularly in the hands and fingers, which are essential for tasks like writing, buttoning, and using utensils and manipulating objects (Jordán & Infantes-Paniagua, 2021; Lust et al., 2011).

1.7.3. Pre-school Teachers: Pre-school teachers are educators responsible for delivering early childhood education to young children before they enter formal schooling, focusing on their holistic development and foundational learning skills (Biwott et al., 2022).

1.7.4. Pre-school Teachers' Knowledge: Teachers' knowledge encompasses their understanding of fine motor skills and the pedagogical strategies necessary for their development (Roslin et al., 2023).

1.7.5. Pre-school teachers 'Attitude: Preschool teachers' attitudes towards developing fine motor skills in preschool education refer to their beliefs and inclinations regarding enhancing children's small muscle coordination and dexterity during early learning activities (Drvodelić and Domović, 2016).

1.7.6. Development of Fine Motor Skills: The development of fine motor skills involves the ability to manipulate objects with precision, such as writing, threading beads, stacking blocks, tying shoelaces, turning pages, cutting with scissors, and playing with dough to create shapes (Amel E Abdel Karim, 2015; Houwen, 2009; Laura, 2013; Mayes S. D., 2009; Xia Wei, 2016).

1.7.7. Struggling Children: Struggling children are preschool students who exhibit difficulties in performing tasks that require fine motor skills, such as holding a pencil, cutting with scissors, or manipulating small objects (Wahyuni & Mahmudah, 2018). These difficulties are identified through teacher observations, assessments, and comparisons with developmental milestones expected for their age group.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1. Theoretical Literature

2.1.1. Definition and Concepts of Fine Motor Skills

Motor skills encompass the internal processes that facilitate bodily movement through space and the cognitive mechanisms that drive these movements (Burton & Rodgeron, 2001). They include the ability to execute precise and controlled movements using the small muscles in the hands and fingers, which are essential for tasks such as writing, drawing, and self-care activities (Strooband et al., 2020; Saraswati, 2022). Fine motor skills involve the coordination of the nervous system, muscles, and intricate motor control of the hands and fingers, playing a crucial role in cognitive development during early childhood (McPhillips & Jordan-Black, 2007; Syafril et al., 2018). These skills are fundamental in early years, laying the groundwork for future independence and academic achievement (Saraswati, 2022). According to McPhillips and Jordan-Black (2007), fine motor skills in kindergarten should align with the curriculum and be assessed through developmental tasks with specific achievement indicators that meet early childhood education standards. These developmental milestones can be planned for the span of one year (Pagani et al., 2010).

Research indicates that targeted intervention programs for children from birth to age six can significantly enhance fine motor skills, with structured activities often yielding beneficial outcomes (Needham et al., 2021). For instance, creative activities like batik have been shown to improve fine motor coordination (Strooband et al., 2020). Moreover, using everyday materials as tools for fine motor development has proven effective, underscoring the importance of resourcefulness in educational settings (Bowler et al., 2024). Nevertheless, further research is needed, particularly studies that explore diverse populations and long-term effects, to gain a deeper understanding of fine motor skill development (Saraswati, 2022).

2.1.2. Definition and concept of Development of Fine Motor Skill

Fine motor skills are a crucial aspect of children's activities in school, with approximately 30-60% of the school day dedicated to tasks that require motor skills. Developing these skills is essential for enhancing students' academic abilities (Lin et al., 2014). Significant fine motor skills include

behaviors such as holding, grasping, writing, tearing drawing, cutting and gluing during preschool. Object control allows the child to gain new experiences and interact with the environment. Besides, fine motor development affects children's school skills such as copying, drawing, and writing. Fine motor skills are quite essential for academic growth and academic success of children. Because children should be able to copy, demonstrate, write or draw letters and shapes using appropriate fine motor skills in the school (Gliner, 1985).

Activities such as using scissors and creating collages play a crucial role in strengthening the small muscles in the hands and fingers, thereby supporting fine motor development (Greutman, 2017). At this stage, children can often draw figures with recognizable human features, and these drawing skills continue to improve markedly until around age seven (Hurlock, 1956). By six, children can tie shoelaces and dress themselves independently (James & Engelhardt, 2012; Santrock, 2007; Wilhelm et al., 2012).

The development of fine motor skills involves the ability to manipulate objects with precision, such as writing, threading beads, stacking blocks, tying shoelaces, turning pages, cutting with scissors, and playing with dough to create shapes (Karim & Mohammed, 2015; Houwen et al., 2009; Laura, 2013; Mayes et al., 2009; Wei, 2016). Additional activities that contribute to the development of these skills include cutting with scissors, coloring, and drawing with pencils and crayons (Bhatia et al., 2015). Given the significance of these skills, it is important for teachers to understand and support the development of fine motor skills in children during their time at school.

Motor development, encompassing both fine and gross motor skills, is one of the most rapidly evolving domains in early childhood (Hurlock, 1956). Children typically experience significant progress in fine motor skills during their early years. As they grow, children also develop complex motor skills, including movement control and vasomotor coordination, which enable them to engage in more intricate fine motor activities (Wassenberg et al., 2005).

2.1.3. Theoretical Perspectives on Fine Motor Skill Development

Fine motor skills (FMS) are crucial for performing precise movements involving smaller muscle groups, such as those required for writing, drawing, and manipulating objects with accuracy (Suggate et al., 2023; Fischer et al., 2022). The development of these skills is a fundamental aspect

of childhood growth and is influenced by various theoretical perspectives. Jean Piaget's theory of cognitive development suggests that children pass through stages where their motor skills become more refined as their cognitive abilities mature (Miller, 2022). As children develop object permanence and mental representations, their FMS also improve, reflecting a close connection between cognitive and motor development (Zuccarini et al., 2020).

Lev Vygotsky's sociocultural theory, on the other hand, emphasizes the importance of social interactions and cultural influences on motor development. According to Vygotsky, FMS are shaped through guidance from more skilled individuals, such as parents and teachers, highlighting the role of social context in skill acquisition (de Oliveira & Jackson, 2017; Vygotsky, 1978). This theory also suggests that parental involvement plays a significant role in enhancing children's problem-solving abilities through the development of their FMS. Additionally, functionalism posits that greater FMS lead to increased engagement in activities like drawing or writing, which are vital for academic and personal development (Suggate et al., 2023). The dynamic systems theory further proposes that FMS development is influenced by multiple interacting factors, including the nervous system, biomechanics, environment, and task constraints (Darrah et al., 2003).

Among these theoretical perspectives, Vygotsky's sociocultural theory is particularly relevant to guide the current study on the knowledge, attitudes, and practices of teachers regarding the development of fine motor skills in preschool children in Addis Ababa. This theory is appropriate because it underscores the role of educators in shaping children's FMS through guided interactions, which aligns with the focus of the study on teacher practices. Moreover, the emphasis on social and cultural contexts resonates with the Ethiopian setting, where community and familial interactions play a significant role in child development. Thus, Vygotsky's framework provides a comprehensive lens to examine how teachers' practices influence fine motor skills development in preschool children.

2.1.4. Educational Policies and Curriculum Standards

A review of educational policies related to early childhood education (ECE) and fine motor skills highlights significant trends and challenges. Internationally, policies like India's National

Education Policy advocate for Developmentally Appropriate Practices (DAP), emphasizing play-based and activity-oriented learning to support fine motor skill development in young children (Gupta, 2022). In Ethiopia, although there is an acknowledgment of the importance of early childhood care and education (ECCE), the implementation is inconsistent, especially among vulnerable populations (Orkin et al., 2012; Nega, 2013). Ethiopian policies, including the National Children's Policy, aim to address the needs of children in challenging situations but often lack comprehensive strategies for effective implementation (Zewude & Siraw, 2022). Additionally, limited resources and a strong emphasis on universal primary education can sometimes undermine the quality of ECCE services, particularly for the most disadvantaged children. Research suggests that effective development of fine motor skills requires proper infrastructure and trained educators, both of which are lacking in many areas of Ethiopia (Mu'ammam et al., 2023). Consequently, while there is a global effort to improve ECE, Ethiopia faces specific challenges that require focused policy interventions to ensure equitable access to quality education for all children.

2.2. Empirical Literature Review

2.2.1. Stages of Fine Motor Development in Early Childhood

Fine motor development during early childhood is crucial for overall growth, involving the coordination of small muscle movements, particularly in the hands and fingers. Research emphasizes that fine motor skills are vital for tasks such as writing, drawing, and self-care activities, and their development can be significantly enhanced through targeted learning materials and activities. For example, using learning media like plasticine and recycled materials has been shown to effectively engage children and improve their fine motor skills (Rosalianisa et al., 2023; Saraswati, 2022; Kamaruddin et al., 2023). Additionally, studies indicate that factors such as age and gender play a role in fine motor skill development, with older children and females typically exhibiting more advanced skills (Józsa et al., 2023). The stages of fine motor development in early childhood involve activities like pencil shavings collage, cutting, coloring, and interactive writing. Factors influencing this development include counseling, the learning environment, and motivation (Isnaini & Katoningsih, 2022). Overall, promoting fine motor skills through engaging, hands-on activities is essential in early childhood education, supporting both cognitive and physical growth.

2.2.2. The Importance of Fine Motor Skills Development in Preschool Children

Fine motor skills are essential for everyday tasks, enabling individuals to perform actions that require precise hand and finger movements. These skills are critical for self-care activities such as dressing, feeding, and holding objects, and are closely linked to cognitive, social, and academic abilities in young children (Memišević & Mačak, 2014; De Luca et al., 2013). Fine motor skills also play a vital role in a child's emotional and social adjustment to school, with motor abilities being significant predictors of school readiness and success (Bart et al., 2007). A comprehensive study by Gligorović et al. (2011) demonstrated that motor skills are closely associated with the foundational skills needed for academic achievement.

These abilities are not only important for basic self-care but also for tasks such as writing, using utensils, and handling small objects, which are essential for a child's independence and quality of life (Burr & Choudhury, 2021). Moreover, the development of fine motor skills is a key indicator of overall neurological health, and delays in these areas can signal potential developmental concerns (Hughes & Waickus, 2017). Research further shows a strong correlation between fine motor skills and academic performance, emphasizing their role in a child's success in school and beyond (Souza et al., 2022). Therefore, fine motor skills are fundamental to a child's ability to function independently and are closely tied to their cognitive, social, and academic development across various contexts (Hughes & Waickus, 2017; Souza et al., 2022).

Fine motor skills are essential for everyday tasks that require precise hand and finger movements, such as dressing, feeding, and holding objects. These skills are not only critical for basic self-care but are also closely linked to cognitive, social, and academic abilities in young children (Memišević & Mačak, 2014; De Luca et al., 2013). Fine motor skills play a vital role in a child's emotional and social adjustment to school, with motor abilities being significant predictors of school readiness and success (Bart et al., 2007). Research by Gligorović et al. (2011) demonstrated that these motor skills are closely associated with the foundational abilities needed for academic achievement.

Additionally, fine motor skills are essential for tasks such as writing, using utensils, and handling small objects, which are important for a child's independence and overall quality of life (Burr & Choudhury, 2021). The development of these skills is also a key indicator of neurological health,

with delays potentially signaling developmental concerns (Hughes & Waickus, 2017). The strong correlation between fine motor skills and academic performance further emphasizes their role in a child's success in school and beyond (Souza et al., 2022).

Overall, fine motor skills are fundamental to a child's ability to function independently and are integral to their cognitive, social, and academic development across various contexts. This makes the development of fine motor skills a critical focus in early childhood education, highlighting the importance of early identification and intervention to support children's overall growth and success.

2.2.3. Strategies of Fine motor skill development

Fine motor skill development in early childhood can be effectively fostered through various engaging activities. Research highlights several methods, including sewing, batik, modeling, and specialized programs. For instance, modeling activities also play a crucial role, as they encourage meticulous hand movements and promote comprehensive development across cognitive and social domains (Nhu, 2024). Additionally, structured programs like the grapho-plastic initiative have demonstrated significant improvements in fine motor skills among preschoolers, emphasizing the importance of group participation and manual dexterity (Illapa & Chico, 2024). Finally, utilizing diverse media such as scissors and blocks, along with effective teaching strategies, further supports fine motor and visual motor skill development (Mu'ammar et al., 2023). These findings collectively underscore the importance of interactive and varied approaches in nurturing fine motor skills in young children.

Collage activities are an effective method for developing fine motor skills in early childhood, enhancing coordination, agility, and dexterity in hand and finger movements (Nur et al., 2023). Similarly, cutting activities play a crucial role in improving children's fine motor skills, which benefits their learning abilities and cognitive development, as demonstrated in research conducted at PAUD Kartini in Indonesia (Esti et al., 2022). Hands-on activities using interchangeable appliques on garments, such as Tangram puzzles, provide opportunities for learning and skill enhancement, promoting fine motor skill development through creative play (Gulechha & Gulechha, 2019). Additionally, the implementation of coloring activities has been shown to be an

effective method for improving finger dexterity and coordination in young children, further supporting the development of fine motor skills (Jumiyati & Hasanah, 2023).

The use of recycled materials in activities like grasping, drawing, sticking, shaping, and tracing also proves beneficial in building fine motor skills in early childhood, offering a creative and resourceful approach to skill development (Inayah, 2022). Furthermore, virtual reality-based games have emerged as a promising tool for enhancing fine motor skills, particularly in children with special needs. These interactive games focus on essential skills such as pincer grasp, reasoning, and hand-eye coordination, providing an engaging platform for motor skill development (Ashwini et al., 2021). Lastly, weaving activities, involving finger movements and eye-hand coordination, have been shown to effectively improve fine motor development in early childhood, highlighting the importance of diverse and hands-on learning experiences in nurturing these critical skills (Kamaruddin et al., 2022).

2.2.4. Intervention Strategies for Children Struggling with Fine Motor Skills

A variety of intervention strategies have proven effective in enhancing fine motor skills for children experiencing difficulties. One successful method involves structured activities using basic Legos, which have shown substantial improvements in fine motor skills among children with developmental challenges, as evidenced by both quantitative and qualitative data (Mandich & Rubin, 2023). Another effective strategy is haptic perception training, which targets sensory and motor functions in adolescents with developmental coordination disorder (DCD), resulting in notable enhancements in fine motor control and integration (Wuang et al., 2022). Additionally, focusing on strengthening pinch and grip abilities has been linked to improved handwriting performance in young children, underscoring the importance of engaging with fine motor materials during classroom activities (Breuhl, 2022). A systematic review confirms that various motor skill intervention programs positively impact fine motor development in children from birth to six years old (Strooband et al., 2020). These strategies collectively emphasize the importance of tailored interventions in fostering fine motor skills across diverse child populations.

2.2.5. The Role of Teachers in Fostering Fine Motor Development

Teachers are pivotal in promoting fine motor development in early childhood through a range of strategies and activities. Research highlights that teachers' function as facilitators, role models, and mentors, particularly in creative activities such as finger painting, which actively engage children and enhance their fine motor skills (Khasanah et al., 2023). Structured occupational therapy activities, designed for students with special needs, illustrate the significance of planning and collaboration among educators to effectively address fine motor challenges (Jasmon & Salubin, 2022). Additionally, teachers employ various resources and materials, such as plasticine and scissors, to create engaging learning experiences that support fine motor development (Agustina et al., 2024; Mu'ammar et al., 2023). The thoughtful selection of these materials is crucial, as it directly impacts the effectiveness of fine motor skill development (Hanafiah et al., 2023). Thus, integrating creative, structured, and resourceful teaching methods is essential for optimizing fine motor development in early childhood education.

Teacher training and professional development play a critical role in enhancing the effectiveness of fine motor skills instruction. Research indicates that in-service training improves teachers' content knowledge and pedagogical skills, which are vital for implementing effective fine motor skills instruction (Quilapio & Callo, 2022). For instance, programs that combine fine motor skills training with phonetic gymnastics have demonstrated statistically significant improvements in preschool children's motor skills, highlighting the value of structured training (Gaona-García et al., 2019). However, while professional development is beneficial, attending workshops alone does not significantly enhance teachers' awareness of fine motor skills (Musa & Ahmad, 2019a). This suggests that self-directed learning and experience-sharing among educators are also crucial. Moreover, the interconnection between gross and fine motor skills implies that comprehensive training programs should address both areas to optimize motor skill development (Sorgente et al., 2021). Overall, targeted teacher training is essential for effective fine motor skills instruction in early childhood education settings.

2.2.6. Knowledge and Attitudes of Teachers towards Fine Motor Development

Empirical studies offer valuable insights into teachers' knowledge and attitudes toward fine motor development in elementary education. One study found that a majority of elementary school

teachers were unfamiliar with integrating motor skills into mathematics lessons, with 90% unaware of the link between specific motor activities, such as stepping and jumping, and mathematical concepts (Desak et al., 2024). Conversely, another study revealed that kindergarten teachers effectively utilized well-planned and diverse teaching methods to develop fine motor skills, demonstrating a proactive approach (Revormis & Saridewi, 2022). Additionally, research on teachers working with students with special educational needs showed high awareness regarding fine motor skills, although attending workshops did not significantly boost this awareness (Musa & Ahmad, 2019a). These findings suggest that while teachers recognize the importance of fine motor skills, practical implementation varies. This highlights the need for targeted professional development to enhance teachers' abilities to instruct fine motor skills effectively.

Several factors impact teachers' knowledge and attitudes towards fine motor development, particularly within special education. Awareness of fine motor skills is crucial for effective teaching, as research indicates that self-initiated learning and experience-sharing among teachers significantly improve their understanding (Musa & Ahmad, 2019a). Despite many teachers' awareness of the importance of fine motor skills, formal training courses alone have not significantly increased their knowledge, suggesting that intrinsic motivation and self-directed learning are vital (Musa & Ahmad, 2019a). Moreover, factors such as individual resources, organizational culture, and job demands influence teachers' willingness to share knowledge, which is essential for professional growth (Wu, 2024). Therefore, fostering a supportive environment for knowledge sharing and professional development is critical for enhancing teachers' competencies in fine motor development.

2.2.7. Teachers' Knowledge and Attitude: Empirical Evidence

The assessment of teachers' knowledge and attitudes towards fine motor development in preschool settings reveals significant insights from global, African, and Ethiopian perspectives. Research indicates that fine motor skills are crucial for children's academic and daily life success, necessitating teachers' awareness and effective pedagogical strategies to foster these skills from an early age (Musa and Ahmad, 2019). In Malaysia, a study found that while teachers exhibited a high level of awareness regarding fine motor skills, attendance at workshops did not significantly

enhance this awareness, suggesting that self-initiated learning plays a critical role (Musa and Ahmad, 2019; Musa & Ahmad, 2019b).

Empirical research highlights significant issues regarding Ethiopian preschool teachers' knowledge, attitudes, and practices related to the development of fine motor skills in young children. Studies indicate that the preschool teacher training curriculum in Ethiopia often falls short, focusing predominantly on subject-specific content rather than a holistic approach to child development, including motor skills (Abraha & Binyam, 2022). This gap is exacerbated by a reported deficiency in teachers' pedagogical skills and training, which impedes their ability to create inclusive environments that support fine motor development, particularly for children with special needs (Tesema et al., 2022). While there is some awareness among educators about the importance of fine motor skills, this awareness does not always translate into effective practice due to limited resources and inadequate training opportunities (Farizan & Noor, 2019). Furthermore, the integration of fine motor skill development into the curriculum is insufficient, as evidenced by the minimal emphasis on these skills in teacher education programs (Abraha & Binyam, 2022).

In Addis Ababa, research on fine motor skill development in preschool children reveals similar concerns. Although activities such as puzzle games and collage-making are known to benefit fine motor development, there is a lack of focused research on this topic within the city (Defi et al., 2024; Nukhayati, 2024). Additionally, a study investigating teachers' attitudes towards inclusive education for children with Autism Spectrum Disorders (ASD) found that only 35.5% of teachers possess sufficient knowledge about ASD, suggesting broader deficiencies in understanding child development needs (Mizan et al., 2024). While some educators show a positive attitude towards inclusive practices, their overall knowledge and preparedness to implement effective fine motor skill development strategies remain limited (Mizan et al., 2024). This gap highlights the need for targeted professional development and enhanced resources to improve teachers' ability to support fine motor skills development in preschool children in Addis Ababa (Muhammad et al., 2023).

This study aims to address these gaps by evaluating preschool teachers' knowledge, attitudes, and practices regarding fine motor skill development, and by providing insights and recommendations to enhance teacher training and curriculum design in Addis Ababa.

CHAPTER THREE: RESEARCH METHODS

This chapter outlines the research methods employed in the study. It details the systematic approach taken to investigate the research questions, including the design, setting, population, sampling techniques, data collection methods, and analysis procedures. By elucidating these components, this chapter provides a comprehensive understanding of how the study was conducted, ensuring transparency and rigor in examining preschool teachers' knowledge and attitudes toward fine motor skills development. Through a qualitative research design, the chapter aims to offer a nuanced perspective on the practices and challenges faced in fostering fine motor skills among young children, contributing to the broader field of early childhood education.

3.1. Research Design

The study adopts a descriptive qualitative research design to explore teachers' understanding and attitudes toward fine motor skills development in preschool children. This design is chosen because it allows for an in-depth examination of the subjective experiences and perspectives of preschool teachers. By using qualitative methods, the research seeks to uncover detailed insights into how teachers perceive and implement fine motor skills development strategies, and how their knowledge influences their teaching practices.

3.2. Research Setting

The research is conducted at Phase Academy Primary School, situated in Gulele Sub-City, Addis Ababa. This setting provides a focused context where the development of fine motor skills is actively monitored and facilitated. The choice of this particular school allows the study to delve into an environment where preschool education and child development practices are central, offering a practical and relevant backdrop for investigating teachers' approaches to fine motor skills.

3.3. Source of Data

The primary source of data for this study is the preschool teachers themselves. Through direct interviews, the study gathers firsthand information about their perspectives on fine motor skills

development and their experiences with related educational practices. This primary data source is crucial for obtaining accurate and detailed insights into the research topic.

3.4. Study Population

The population under study includes preschool teachers at Phase Academy Primary School. These teachers are responsible for the education and developmental support of young children, typically aged 3 to 6 years. The study targets this specific group as they are directly involved in the nurturing of fine motor skills and are well-positioned to provide insights into the effectiveness and challenges of current practices.

3.5. Sampling Techniques and Procedures

Purposive sampling is employed to select participants who possess the relevant experience and knowledge regarding fine motor skills development. This technique ensures that the sample consists of teachers who are actively engaged in preschool education and have firsthand experience with the developmental processes being studied. A total of 10 teachers are chosen based on their direct involvement in preschool activities and their willingness to contribute to the study.

3.6. Data Collection Method

Data is collected through semi-structured interviews, a method well-suited for exploring complex phenomena in depth. Semi-structured interviews provide the flexibility to probe deeply into teachers' experiences and viewpoints while maintaining a consistent focus on the study's objectives. This method allows for an open-ended discussion, facilitating a comprehensive understanding of teachers' knowledge and practices.

3.7. Data Collection Tools/Instruments

An interview guide is used as the primary tool for data collection. This guide consists of semi-structured questions designed to elicit detailed responses from participants about fine motor skills development and related interventions. Additionally, a recording device is utilized to capture interviews accurately, ensuring that all verbal responses are recorded for subsequent transcription and analysis.

3.8. Data Collection Procedures

The data collection process involves scheduling interviews with the selected teachers, preparing informed consent forms, and conducting the interviews. Each interview is planned to last between 30 to 45 minutes, providing ample time to explore the topics in depth. Following the interviews, recordings are transcribed verbatim to ensure that all responses are accurately captured for analysis.

3.9. Data Quality Control

To ensure the reliability and validity of the data, several quality control measures are implemented. A pilot test of the interview guide is conducted with a few teachers to refine the questions and address any ambiguities. Inter-rater reliability is maintained by having multiple researchers review and code the interview transcripts. Additionally, member checking is performed by sharing findings with participants to confirm the accuracy and credibility of the results.

3.10. Data Analysis

The data analysis for this study on the knowledge, attitudes, and practices of teachers regarding the development of fine motor skills in preschool children in Addis Ababa, Gulele Sub-City, was conducted using a thematic analysis approach. The qualitative data obtained from Key Informant Interviews (KIIs) were organized and analyzed according to predefined thematic areas. This structured approach allowed for a systematic exploration of the key themes relevant to the research objectives.

Organizing Data by Thematic Areas: The KII questions were initially developed under specific thematic areas related to fine motor skills development, such as teacher knowledge, teaching practices, challenges faced, and attitudes towards fine motor skills development. This organization provided a clear framework for both the data collection and analysis phases, ensuring that the information gathered was directly aligned with the study's objectives.

Summarizing Responses: For each thematic area, the responses from the KIIs were systematically summarized and presented in tables. These tables included the specific questions asked, the summarized responses from each participant, and any notable patterns or variations in

the answers. This approach facilitated a clear overview of the data, making it easier to identify common themes, trends, and unique insights.

Conducting Thematic Analysis: Thematic analysis was conducted by carefully reviewing the summarized responses within each thematic area. The process involved:

- **Familiarization with the Data:** Reading through the responses multiple times to gain an in-depth understanding of the content.
- **Coding:** Identifying and labeling key concepts, ideas, and phrases that were relevant to the study's research questions.
- **Theme Development:** Grouping similar codes into broader themes that accurately represented the data. These themes were directly linked to the research objectives and provided insights into teachers' knowledge, attitudes, and practices regarding fine motor skills development.
- **Interpretation and Analysis:** Interpreting the data within each theme, considering the context and the implications of the findings. This step involved analyzing the relationships between themes and how they collectively addressed the research questions.

Ensuring Rigor and Validity: To ensure the rigor and validity of the analysis, peer debriefing and member checking were employed. Selected participants were asked to review the summarized responses and the initial themes to verify the accuracy of the interpretation. Additionally, triangulation was used by comparing the findings with existing literature and theoretical perspectives on fine motor skills development.

In general, this structured approach to data analysis, combining thematic organization, summary tables, and a thorough thematic analysis, enabled a comprehensive exploration of the teachers' perspectives on fine motor skills development. The findings are presented in a way that highlights the nuanced understanding of the subject, providing valuable insights for educators, policymakers, and researchers interested in early childhood education.

3.11. Ethical Considerations

Ethical clearance for this study was first obtained from the Research and Publication Office of Addis Ababa University (AAU). Following this, ethical permission was secured from the Addis Ababa Education Office and the Woreda Education Office, ensuring the study met all necessary regulatory and ethical standards. Participation in the study was entirely voluntary. Informed consent was obtained from all participants, including preschool teachers, ensuring they were fully aware of the study's objectives, their role, and their right to withdraw at any time without any consequences. The study also involved collecting data from documents at Phase Academy Primary School, for which appropriate permissions were obtained.

Confidentiality was rigorously maintained by anonymizing participant information and securely storing all data to protect participants' privacy. The research was conducted with the utmost respect and sensitivity, ensuring that participants' views were treated with care and that interviews were conducted in a non-intrusive, respectful manner. This approach ensured that the study upheld the highest ethical standards throughout its execution.

CHAPTER FOUR: RESULTS

This chapter presents the results from interviews with preschool teachers at Phase Academy Primary School, Gulele Sub-City, Addis Ababa. The findings are categorized under seven thematic areas: teachers' knowledge of fine motor skills, observations of fine motor development, methods used to develop fine motor skills, challenges faced, national instructional strategies, impact of fine motor skill development, and recommendations for improving fine motor development practices.

4.1. Socio-Demographic Characteristics of the Participants

The demographic profile of the participants indicates a relatively young, predominantly female group of teachers with varying levels of experience and education. This diversity provides a range of perspectives and practices that contribute to understanding the challenges and strategies related to fine motor skills development in preschool children.

Table 1: Respondent Demographic Distribution:

Variable Name	Group	Number	Average	Percent (%)
Sex	Male	1		10
	Female	9		90
Age	22-42	10	30.7	
Marital Status	Married	3		30
	Unmarried	6		60
	Divorced	1		10
Education	Diploma	2		20
	Degree and above	8		80
Experience (in years)	0.25 - 15	10	6.6	

4.2 Teachers' Knowledge on the Development of Fine Motor Skills

The findings indicate a varied understanding among teachers regarding the concept of fine motor skills, with some demonstrating awareness while others showed uncertainty. This reflects a potential gap in professional development, as none of the teachers reported receiving formal training on this topic.

Table 2: Teachers' Knowledge on Fine Motor Skills

Q.N.	Sub Questions	Summary Response
1	What do you understand by the term "fine motor skills"?	Some teachers have a basic understanding, but there are gaps and confusion, with some merging fine motor skills with other developmental skills. One teacher was unsure about the term.
2	How do you perceive the importance of developing fine motor skills in preschool children?	Teachers expressed that fine motor skills are part of natural development, though some see it as less critical compared to other skills.
3	Have you received any formal training on how to develop fine motor skills in preschool children?	None of the teachers have received formal training on fine motor skills development.
4	What resources or materials do you use to support the development of fine motor skills?	Teachers primarily use traditional and cultural materials. The school lacks organized resources and materials to support fine motor development effectively.

Most teachers demonstrated an incomplete understanding of fine motor skills, often confusing them with broader developmental milestones. For instance, one teacher commented, "Students might lose concentration. They focus on something else. We see them with that respect. They don't directly stay on task like adults by nature." This highlights a tendency to misinterpret fine motor challenges as issues of attention or general developmental delays.

Moreover, teachers lacked formal training in fine motor skills development, leading to reliance on traditional and cultural methods rather than evidence-based practices. This gap is significant, as it affects the effectiveness of the interventions they implement. Without proper training and resources, teachers may struggle to identify and address fine motor delays adequately. This issue is compounded by a lack of understanding of developmental benchmarks, with one teacher noting, "They can't tie their shoes, but as I told you, some zippers which don't fit properly are difficult for even adults."

4.3 Teachers' Observations of Fine Motor Skill Development

Teachers' observations provide valuable insights into the daily challenges faced by preschool children in developing fine motor skills. The responses indicate varying levels of concern and awareness among teachers.

Table 3: Teachers' Observations of Fine Motor Skill Development

Q.N.	Sub Questions	Summary Response
1	Do you have any concerns about your students' fine motor skills?	The majority of respondents expressed no concerns about fine motor skills.
2	What type of difficulty do you observe with daily tasks of your students?	Six respondents observed writing difficulties among students.
3	What kind of overly clumsy activity do you observe in your students?	Some students lag in writing from the blackboard.
4	What kind of difficulty with handwriting do you notice in your students?	Some students struggle with pen grip and are slow in writing.
5	Please brief any difficulty students' face while throwing or kicking a ball?	Some students cannot throw properly.
6	How do you explain your students' performance in picking up small objects?	Many respondents did not notice any problems, while others stated students could pick up objects easily.
7	Could you please explain your student's ability to string beads or thread a needle?	The majority of respondents did not observe this ability.
8	How does your student's motor coordination compare to other children of their age?	Respondents noted a gap between students in motor coordination.
9	How do you explain your students' performance in using scissors to cut along a straight line?	Some students struggled with cutting, while others managed well.
10	Could you please explain your student's ability to build a tower of blocks?	Most respondents reported that students could build block towers, with a few exceptions.

Teachers observed a range of fine motor difficulties among students, particularly in writing and using tools like scissors. One teacher noted, "Not copying from the blackboard correctly, skipping letters..." which highlights a common issue of students struggling to transfer visual information into written form. Another teacher remarked, "There is also a gap in identifying the right milestones of age for the development of fine motor skills, as they seem to simply distinguish between children without reference to proper benchmarks."

The lack of formal assessment or monitoring exacerbates these challenges, as teachers rely on casual observations rather than structured evaluations. This approach can lead to inconsistencies in identifying students who may require additional support. These findings emphasize the need for

targeted interventions to support students struggling with fine motor tasks, aligning with Vygotsky's theory of guided learning through social interaction (de Oliveira & Jackson, 2017).

4.4 Methods and Interventions for Developing Fine Motor Skills

Effective methods and interventions are essential for supporting fine motor development in preschool children. The study explored the strategies used by teachers at Phase Academy Primary School and their effectiveness.

Table 4: Methods and Interventions for Developing Fine Motor Skills

Q.N.	Sub Questions	Summary Response
1	What methods of fine motor skills development are used by preschool teachers?	Teachers primarily use games and crafts to develop fine motor skills.
2	How do interventions improve students' fine motor development?	Play-based activities are the main interventions used.
3	How do you assess and monitor the progress of your students' fine motor skills?	Progress is assessed informally through day-to-day activities.

Teachers primarily rely on basic activities such as cutting, coloring, and playing games to develop fine motor skills. While these activities are beneficial, the lack of structured interventions or assessments limits their effectiveness. A teacher mentioned, "Even if it is not very high, they can arrange it, but if it is higher, balancing it might be difficult for them." This suggests that while students engage in tasks like block stacking, the challenge level is not sufficiently tailored to push their development further.

The interventions noted by teachers are informal and based on daily classroom interactions. For instance, one teacher commented, "By telling them this is how you tie your shoe, or how you button and by giving them advice, children will get it, then children start to adopt...". While these activities are beneficial, the lack of formal assessment and monitoring suggests that opportunities to identify and support students with fine motor challenges may be missed.

4.5 Challenges in Promoting Fine Motor Skills

Teachers face various challenges in promoting fine motor skills development in their classrooms. These challenges can stem from both external factors and internal limitations within the educational environment.

Table 5: Challenges in Promoting Fine Motor Skills

Q.N.	Sub Questions	Summary Response
1	What challenges do you face in promoting fine motor skill development in your classroom?	Teachers face challenges like writing difficulties, lack of material aid, and students' varying levels of natural ability.
2	What steps do you take if a child shows signs of delayed fine motor skill development?	Teachers tend to use traditional methods, such as reassurance and encouragement, though some believe that delays are natural and not always addressable.

One of the primary challenges identified was the lack of resources and materials, which limits the range of activities and interventions teachers can offer. Teachers noted difficulties in addressing fine motor delays, often attributing them to natural differences among students. As one teacher expressed, “I don’t know, sometimes it is nature, there is a slow person and there is a fast person.” This perception can lead to a lack of proactive intervention, as teachers may assume that such delays are beyond their control.

Additionally, the belief that some fine motor delays are due to a lack of practice or parental involvement further complicates the issue. Teachers may not always see the necessity of addressing these delays directly, instead opting for reassurance or encouragement, which may not be sufficient for students with significant challenges. This implies a need to provide teachers with better resources and training to support the development of fine motor skills, as well as fostering a more positive and proactive attitude towards early intervention (Suggate et al., 2023).

4.6 Perceived Impact of Fine Motor Skill Development

Fine motor skills are critical for various aspects of a child's development, including academic performance and daily activities. The study explored teachers' perceptions of how these skills impact their students.

Table 6: Perceived Impact of Fine Motor Skill Development

Q.N.	Sub Questions	Summary Response
1	How do you think the development of fine motor skills impacts a child's overall learning and development?	Teachers noted that delays in fine motor skills could hinder overall learning and development, causing some students to lag behind.

Q.N.	Sub Questions	Summary Response
2	How does your student's motor coordination compare to other children of their age?	Teachers observed gaps in motor coordination between students, though these were not seen as severe issues.
3	In your experience, how do parental involvement and home environment affect the development of fine motor skills?	Teachers expressed that a lack of parental involvement and support at home could contribute to delays in fine motor development.
4	Do you collaborate with parents or guardians to enhance the fine motor skill development of their children? If so, how?	Collaboration with parents is minimal, with teachers not actively engaging parents in their children's fine motor development.

Teachers acknowledged that fine motor delays can negatively impact a child's learning experience, particularly in writing and other classroom activities. One teacher observed, *“With respect to writing, there is clumsiness...we divide them into small groups when we instruct them, but nonetheless, since there is a difference among students, some of them are fast who write properly.”* This illustrates how fine motor delays can create disparities among students, affecting overall classroom dynamics.

Furthermore, teachers noted the importance of parental involvement in supporting fine motor development but acknowledged that this collaboration is often lacking. The minimal interaction with parents concerning fine motor skills suggests a missed opportunity for reinforcing these skills outside the classroom. This indicates that the absence of collaboration between teachers and parents points to an area where improvements could be made to ensure a more holistic approach to supporting children's fine motor development. This aligns with Vygotsky's emphasis on the role of social interaction and guided learning in child development (Vygotsky, 1978).

4.7 Strategy Related to Fine Motor Development of Preschool Students

The Ethiopian Ministry of Education's preschool strategy indirectly supports the development of fine motor skills through structured activities within the curriculum. This thematic area explores the alignment of national policies with the fine motor development needs of preschool students.

Table 7: Strategy Related to Fine Motor Development of Preschool Students

Q.N.	Sub Questions	Summary Response
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1	How does the national curriculum support the development of fine motor skills?	The Ethiopian Ministry of Education's preschool strategy indirectly supports fine motor development through activities like sports, dance, and drawing. It also categorizes students by age to tailor learning experiences.
2	What specific activities or strategies does Phase Academy Primary School employ to develop fine motor skills?	The school uses paper cutting, writing exercises, sports, and other hands-on activities aligned with national curriculum guidelines. Teachers incorporate play-based activities and use specialized tools to foster fine motor skills.

The Ethiopian Ministry of Education's preschool strategy indirectly supports fine motor skill development through the inclusion of activities such as sports, dance, and creative tasks within the national curriculum. These activities align with international approaches that emphasize the importance of play-based and activity-oriented learning for early childhood development, as highlighted in India's National Education Policy (Gupta, 2022). However, the curriculum does not explicitly focus on fine motor skills, and there is a noticeable gap in targeted strategies that address this critical area of development.

While the national curriculum provides a broad framework that allows for the integration of fine motor activities, the lack of explicit emphasis on these skills can lead to uneven development among preschool students. This is consistent with literature indicating that although Ethiopia acknowledges the importance of early childhood care and education (ECCE), the implementation remains inconsistent, especially in vulnerable populations (Orkin et al., 2012; Nega, 2013).

At Phase Academy Primary School, teachers incorporate various strategies to foster fine motor skills, such as cutting papers, writing, and playing with different materials. These activities, while beneficial, are limited by the school's lack of specialized resources and formal training for teachers. This reflects a broader challenge identified in the literature, where the effectiveness of fine motor skill development is often constrained by limited infrastructure and a strong emphasis on primary education that sometimes undermines the quality of ECCE services (Mu'ammer et al., 2023).

One teacher at Phase Academy remarked, *“In our school, we try to promote these skills through cutting papers, writing, and playing with different materials...”* This statement underscores the reliance on basic activities and highlights the need for more comprehensive strategies that can fully address the fine motor development needs of students, particularly those with more significant challenges.

CHAPTER FIVE: DISCUSSION

5.1. Impact of Socio-Demographic Characteristics

The demographic profile reveals a predominantly female workforce with a substantial number of younger teachers. This gender distribution aligns with trends in early childhood education but may influence the pedagogical approaches to fine motor skills development. The age and experience of the teachers suggest that while many are relatively new to the profession, their varying experiences could lead to a rich exchange of ideas and practices. However, the lack of formal training may hinder their effectiveness in addressing fine motor skill development comprehensively.

5.2. Teachers' Knowledge on the Development of Fine Motor Skills

5.2.1. Gaps in Knowledge and Training

The lack of formal training reported by the teachers is concerning, as it suggests a significant gap in professional development opportunities related to fine motor skills. This deficiency can lead to inconsistent practices and a reliance on outdated or ineffective methods. The reliance on traditional and cultural materials also indicates a need for more structured resources to support fine motor development effectively. As noted in the findings, the teachers' limited understanding of fine motor skills could have repercussions on their teaching methods, impacting students' development and overall learning outcomes.

5.2.2 Importance of Professional Development

To improve fine motor skills development in preschool children, it is essential to provide teachers with adequate training and resources. Professional development initiatives that focus specifically on fine motor skills can enhance teachers' understanding and ability to implement effective interventions. By equipping educators with evidence-based practices and resources, schools can better support students struggling with fine motor skills, leading to improved educational outcomes.

5.3 Teachers' Observations of Fine Motor Skill Development

The findings reveal important insights into teachers' perceptions and observations of fine motor skill development among preschool children.

5.3.1 Variability in Teacher Concerns

While most teachers expressed no significant concerns about their students' fine motor skills, the observed difficulties indicate a need for increased awareness and vigilance. The discrepancy between teachers' lack of concern and the presence of difficulties, such as handwriting challenges and clumsiness with tools, suggests that teachers may not fully recognize the importance of fine motor skills in overall development. This aligns with previous research indicating that educators may benefit from enhanced training in recognizing developmental milestones and challenges (Polsley et al., 2022).

5.3.2 The Need for Structured Monitoring

The reliance on casual observations rather than structured evaluations can lead to gaps in identifying students who need additional support. As noted, the lack of formal assessment mechanisms hinders the ability to provide targeted interventions for children struggling with fine motor tasks. Implementing structured monitoring could provide educators with valuable data to inform their teaching strategies and interventions.

5.3.3 Implications for Targeted Interventions

The findings emphasize the necessity for targeted interventions to support students experiencing difficulties with fine motor skills. Developing structured assessment tools could help teachers identify children in need of support and tailor interventions accordingly. By aligning teaching practices with developmental benchmarks, teachers can enhance their effectiveness in fostering fine motor skill development.

5.4. Methods for Developing Fine Motor Skills

5.4.1. Reliance on Informal Methods

The reliance on informal methods, such as games and crafts, suggests that while teachers are attempting to promote fine motor skills, there is a need for more structured and evidence-based approaches. The effectiveness of play-based activities can be enhanced through targeted interventions that focus on specific fine motor skills and are informed by developmental benchmarks.

5.4.2 Importance of Structured Assessments

The lack of formal assessment practices hinders the ability to monitor progress effectively. While informal assessments through daily interactions provide some insights, structured assessments could better identify students needing additional support and ensure that interventions are appropriately tailored to meet their developmental needs.

5.4.3 Professional Development for Enhanced Strategies

The findings highlight the need for professional development to introduce teachers to a broader range of effective strategies and interventions. Providing educators with the tools and knowledge necessary to implement structured activities and assessments will enhance their ability to foster fine motor skill development in preschool children.

5.5 Challenges in Promoting Fine Motor Skills

The findings reveal that teachers face significant challenges in promoting fine motor skill development due to a lack of resources, traditional beliefs about developmental delays, and minimal intervention strategies. The belief that fine motor skill delays are often natural or inevitable can lead to a passive approach to intervention, where teachers might not feel equipped to address these challenges effectively. This mindset can hinder proactive measures necessary for supporting students who struggle with fine motor tasks.

The identified challenges highlight the importance of providing teachers with adequate training and resources, enabling them to recognize and address fine motor skill delays more effectively. By

shifting the perception of developmental delays from being natural to being addressable through targeted intervention, teachers may adopt a more proactive and supportive approach.

5.6 Perceived Impact of Fine Motor Skill Development

The teachers' perceptions indicate a strong correlation between fine motor skill development and overall learning and development. Delays in these skills can lead to challenges in writing and other academic tasks, creating disparities among students. The acknowledgment of gaps in motor coordination reflects a broader concern about how fine motor skills impact not just individual learning but also classroom dynamics and peer interactions.

Moreover, the lack of collaboration between teachers and parents regarding fine motor skill development signifies an area ripe for improvement. Encouraging parental involvement and support at home could enhance students' fine motor development and create a more cohesive support system. This holistic approach aligns with Vygotsky's theories on the significance of social interactions and collaborative learning, reinforcing the idea that development occurs within a social context.

5.7. Strategy Related to Fine Motor Development of Preschool Students

While Ethiopia's national curriculum provides some opportunities for fine motor skill development, the lack of explicit focus and targeted strategies means that the development of these skills may be inconsistent. The national curriculum does include a variety of activities that can support fine motor skills, such as sports and dance; however, these are not specifically designed to target fine motor skill development. This oversight can result in disparities in the fine motor abilities of preschool students, particularly those from disadvantaged backgrounds.

The integration of fine motor activities within a broader curriculum framework is aligned with global educational trends that promote play-based and activity-oriented learning. This approach is evident in successful educational policies like India's National Education Policy (Gupta, 2022), which emphasizes the importance of fine motor development as a core component of early childhood education. However, without explicit guidelines and dedicated resources, the potential of these activities to enhance fine motor skills may remain untapped.

At the Phase Academy Primary School, teachers implement various hands-on activities to develop fine motor skills, but they face limitations due to a lack of specialized resources and insufficient teacher training. This situation reflects a broader systemic issue in Ethiopia's early childhood education sector, where inadequate infrastructure and support can hinder the effective delivery of quality education. The reliance on basic activities, as noted by one teacher, indicates a need for a more robust curriculum that includes specific strategies and resources focused on fine motor skill development. Moreover, the literature suggests that improving policy interventions and resource allocation is crucial for enhancing the quality of early childhood education in Ethiopia (Mu'ammad et al., 2023). This includes ensuring that all children, especially those from vulnerable populations, have access to quality early childhood education that adequately supports their overall development, including fine motor skills.

In conclusion, the alignment of national policies with the fine motor development needs of preschool students is essential for fostering effective early childhood education. By addressing the gaps in the curriculum and providing adequate resources and training for teachers, Ethiopia can work towards a more equitable educational landscape that supports the holistic development of all children.

CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1. Summary

This study explored the knowledge, attitudes, and practices of preschool teachers at Phase Academy Primary School in Addis Ababa, Gulele Sub-City, concerning the development of fine motor skills in preschool children. Through a series of interviews and thematic analysis, the study examined teachers' understanding of fine motor skills, their observations of children's fine motor development, the methods and interventions they employ, the challenges they face, and their perceptions of the broader impacts of fine motor skills on overall learning and development.

Teachers' Knowledge and Understanding: The findings revealed that while teachers possess a basic understanding of fine motor skills, there are gaps in their knowledge, particularly in distinguishing fine motor development from other developmental areas. Some teachers also lack clarity on the appropriate developmental milestones for fine motor skills, often relying on general observations rather than specific benchmarks.

Teachers' Observations: Teachers observed several challenges in students' fine motor skills, including difficulties with tasks such as tying shoes, buttoning clothes, using scissors, and handling small objects. These difficulties were sometimes attributed to a lack of practice, parental involvement, or innate characteristics. However, teachers noted that there were variations among students, with some exhibiting more advanced fine motor skills than others.

Methods and Interventions: The study found that teachers employed a variety of activities to enhance fine motor skills, such as cutting with scissors, coloring, building with blocks, and ball throwing. Interventions included direct instruction and practice, as well as encouraging students through guidance and feedback. Despite these efforts, the teachers expressed a need for more formal training and resources to effectively develop fine motor skills.

Challenges in Promoting Fine Motor Skills: Teachers faced several challenges in promoting fine motor skill development, including a lack of training, inadequate resources, and varying levels of parental involvement. Additionally, there was a concern about the students' home environments, where limited opportunities for practice could hinder fine motor development. The absence of specific protocols at the school level further complicated their efforts.

Perceived Impact of Fine Motor Skill Development: Teachers recognized the significant impact of fine motor skills on children’s overall learning and development, particularly in areas such as handwriting and participation in classroom activities. They emphasized the need for early identification and intervention to address delays in fine motor development to prevent these issues from affecting the children's educational progress.

National Instruction Strategy and School Practices: While the national curriculum includes activities that support fine motor development, such as sports, dance, and drawing, there is no dedicated strategy specifically for fine motor skills. Phase Academy Primary School follows the national curriculum but lacks a specific protocol for fine motor development, relying instead on general activities that align with broader educational goals.

6.2. Conclusion

This study aimed to assess the knowledge and attitudes of teachers regarding the development of fine motor skills in preschool children at Phase Academy Primary School, located in Addis Ababa, Gulele Sub-City. Employing a descriptive qualitative research approach, the study utilized semi-structured interviews with ten teachers to gather in-depth insights into their understanding and practices related to fine motor development.

The major findings indicate that while preschool teachers at Phase Academy Primary School have a foundational understanding of fine motor skills, there are significant gaps in their knowledge and practices. Some teachers tend to confuse fine motor skills with gross motor skills or place undue emphasis on muscle strength, overlooking the nuances of fine motor coordination and dexterity. Despite these gaps, the majority of children were perceived to have adequate fine motor skills, although variations were noted due to factors such as individual developmental differences and environmental influences.

Interventions at the school, including play-based activities, specialized tools, and individualized support, were found to be effective in promoting fine motor skills among students. The study highlights the importance of a multifaceted approach to fine motor development, involving teacher training, parental involvement, resource availability, and targeted interventions for children who lag behind their peers. The implications of these findings are significant for both educational

practice and policy. Enhancing teacher training programs to include more comprehensive coverage of fine motor development could improve the effectiveness of interventions. Additionally, involving parents and providing adequate resources are critical for creating a supportive environment that fosters the development of fine motor skills in preschool children.

6.3. Recommendations

6.3.1. For the School:

- **Formal Training:** Provide teachers with formal training on fine motor skills development, focusing on identifying developmental milestones and effective teaching strategies.
- **Resource Provision:** Equip classrooms with adequate resources and materials that support the development of fine motor skills, such as specialized tools for cutting, writing, and building.
- **Protocol Development:** Develop a specific school-level protocol for fine motor skills development, integrating it with the national curriculum to ensure consistency and focus.
- **Parental Engagement:** Facilitate workshops or information sessions for parents to educate them on the importance of fine motor skills and how they can support their children's development at home.

6.3.2. For the Community and Parents:

- **Parental Involvement:** Encourage parents to engage in activities at home that promote fine motor skills, such as art projects, simple chores, and play that involves fine manipulation.
- **Home Environment:** Create a home environment that offers opportunities for children to practice fine motor skills through everyday tasks and structured activities.
- **Collaboration with Schools:** Parents should collaborate with teachers to monitor and support their children's progress in fine motor skills development, providing feedback and reinforcing school activities at home.

6.4. Future Research Areas

- **Longitudinal Studies:** Conduct longitudinal studies to track the development of fine motor skills in children over time, assessing the long-term impact of early interventions.
- **Comparative Studies:** Compare the effectiveness of different teaching methods and interventions across various educational settings to identify best practices in fine motor skills development.
- **Parental Influence:** Investigate the role of parental involvement and home environment in fine motor skills development, examining how these factors interact with school-based interventions.
- **Policy Analysis:** Analyze the impact of national educational policies on the development of fine motor skills in preschool children, identifying gaps and opportunities for policy enhancement.

This study provides valuable insights into the current state of fine motor skills development at Phase Academy Primary School and highlights the need for targeted interventions and collaboration between schools, parents, and policymakers to enhance the overall developmental outcomes for preschool children.

REFERENCES

- Abraha, A., & Binyam, S. (2022). Quality of pre-school teacher education in Ethiopia and its implication for quality learning outcomes. *Nordic Journal of Comparative and International Education*. <https://doi.org/10.7577/njcie.4625>
- Agustina, D.A., Dian, Miranda, D. and Lukmanulhakim, L. (2024). Methods of Fine Motor Development in 5-6 Year Old Children at TK Tunas Cahaya Kubu Raya. Deleted Journal, doi: 10.58723/junior.v1i2.215
- Allen, S. (1979). Pre-school children: Ethnic minorities in England. *Journal of Ethnic and Migration Studies*, doi: 10.1080/1369183X.1979.9975561
- Amel E Abdel Karim, A. H. M. (2015). Effectiveness of sensory integration program in motor skills in children with autism. *The Egyptian Journal of Medical Human Genetics*, 16, 375–380.
- Araujo, L. B. D., Mélo, T. R., & Israel, V. L. (2017). Low birth weight, family income and paternal absence as risk factors in neuropsychomotor development. *Journal of Human Growth and Development*, 27(3), 272-280.
- Arisma, A. (2020). Relationship between Foster Parents and Work with Preschool Age Child Development. doi: 10.47667/IJPHR.V1I1.3
- Ashwini, K., Ponuma, R., & Amutha, R. (2021). Fine motor skills and cognitive development using virtual reality-based games in children. *Journal of Child Development Research*, 9(4), 271–281. <https://doi.org/10.1016/B978-0-12-822271-3.00006-2>
- Bačar, J. (2019). Development of fine motor skills is essential. *Educational Sciences: Theory & Practice*, 19(4), 178-190. <https://doi.org/10.12738/estp.2019.4.001>
- Bahri, N.F., Ramawisari, I., and Putri, S.P. (2023). Design concept analysis of educational toys to stimulate early childhood fine motor development. *Gelar (Surakarta)*, doi: 10.33153/blr.v21i1.5058
- Bart, O., Hajami, D., & Bar-Haim, Y. (2007). Predicting school adjustment from motor abilities in kindergarten. *Infant and Child Development*, 16(6), 597-615. <https://doi.org/10.1002/icd.514>
- Bhatia, P., Davis, A., & Shamas-Brandt, E. (2015). Educational gymnastics: The effectiveness of Montessori practical life activities in developing fine motor skills in kindergartners. *Early Education and Development*, 26(4), 594-607.

- Biwott, H., Situma, J., & Kapkiai, M. (2022). Pre-school Teachers Continuous Professional Development on Service Delivery in Public Early Years Education Centres in Kapseret Sub County. *East African Journal of Education Studies*, 5(2), 334-343.
- Bowler, A., Arichi, T., Fearon, P., Meaburn, E., Begum-Ali, J., Pascoe, G. ... & Ronald, A. (2024). Phenotypic and genetic associations between preschool fine motor skills and later neurodevelopment, psychopathology, and educational achievement. *Biological psychiatry*, 95(9), 849-858.
- Breuhl, C. (2022). Impact of Direct Fine Motor Intervention on Handwriting. doi: 10.31390/gradschool_theses.5155
- Brookman, A., McDonald, S., McDonald, D., & Bishop, D. V. (2013). Fine motor deficits in reading disability and language impairment. Same or different? *Peer J*, 1(217)
- Burr, P., & Choudhury, P. (2021). Fine motor disability. *Encyclopedia of Behavioral Medicine*. https://doi.org/10.1007/978-1-4614-6435-8_101309-1
- Burr, P., & Choudhury, P. (2022). Fine Motor Disability. In *StatPearls*. StatPearls Publishing.
- Burton, A.W.; Rodgeron, R.W. (2001). New Perspectives on the Assessment of Movement Skills and Motor Abilities. *Adapt. Phys. Act. Q.* , 18, 347–365. [Google Scholar] [CrossRef]
- Cameron C E Brock, L. G., Murrah, W. R., Bell, L., Worzalla, S., Grissmer, D. W., & Chin-Kai Lin, L.-F. M., Ya-Wen Yu, Che-Kuo Chen, Kuan-Hua Li. (2020). Factor analysis of the Contextual Fine Motor Questionnaire in Children. *Research in Developmental Disabilities*, 35, 512–519 Curriculum Framework for Ethiopian Education (KG – Grade 12).(2019),7-9.
- Darrah, J., Hodge, M., Magill-Evans, J., & Kembhavi, G. (2003). Stability of serial assessments of motor and communication abilities in typically developing infants: Implications for screening. *Early Human Development*, 72(2), 97–110. [https://doi.org/10.1016/S0378-3782\(03\)00036-1](https://doi.org/10.1016/S0378-3782(03)00036-1)
- De Luca, C. R., McCarthy, M., Galvin, J., Green, J. L., Murphy, A., Knight, S., & Williams, J. (2013). Gross and fine motor skills in children treated for acute lymphoblastic leukaemia. *Developmental Neuro-rehabilitation*, 16(3), 180-187. <https://doi.org/10.3109/17518423.2013.771221>
- de Oliveira, E. A., & Jackson, E. A. (2017). The moderation role of self-perceived maternal empathy in observed mother–child collaborative problem solving. *Infant and Child Development*, 26(6), e1993. <https://doi.org/10.1002/icd.1993>
- Defi, S., Andareas, K. P., Metha, A. M., & Muhammad, I. A. (2024). The effectiveness of puzzle games on the development of fine motor skills in preschool children aged 3-6 years. *Deleted Journal*. <https://doi.org/10.62260/intrend.v1i3.180>

- Desak, S. S., Mardani, M. S., Riyadi, R., & Budiarti, I. (2024). Professional competence of elementary school teachers in teaching mathematics by utilizing motor skills. *Social, Humanities, and Educational Studies*, 7(1). <https://doi.org/10.20961/shes.v7i1.84321>
- Drvodelić, M., and Domović, V. (2016). Preschool Teachers' Attitudes towards the Self-Evaluation of Preschool Institutions. *Croatian Journal of Education-Hrvatski Casopis za Odgoj i obrazovanje*, doi: 10.15516/CJE.V18I0.2220
- Esti, S., Sa'odah, S., & Adawiyah, R. (2022). Efforts to develop fine motor skills in early childhood in PAUD Kartini, Marga Mulya Village, Sinar Peninjauan District, Ogan Komering Ulu Regency. *Journal of Innovation in Teaching and Instructional Media*, 3(1), 703. <https://doi.org/10.52690/jitim.v3i1.703>
- Farizan, B. C. M., & Noor, A. A. (2019). Evaluating the awareness of fine motor skills in teaching and learning for students with special education needs (learning disabilities) among teachers. *The International Journal of Academic Research in Business and Social Sciences*. <https://doi.org/10.6007/IJARBS/V9-I11/6649>
- Fischer, U., Suggate, S. P., & Stoeger, H. (2022). Fine motor skills and finger gnosis contribute to preschool children's numerical competencies. *Acta Psychologica*, 226, 103576. <https://doi.org/10.1016/j.actpsy.2022.103576>
- Gaona-García, P. A., Montenegro-Marin, C. E., Sarría Martínez-Mendivil, Í., Restrepo Rodríguez, A. O., & Ariza Riaño, M. (2019). Image Classification Methods Applied in Immersive Environments for Fine Motor Skills Training in Early Education.
- Gici, R., & Setiyono, N. (2023). A Review on the Effects of Montessori Practical Life Activities in Developing Fine Motor Skills in Kindergartners and Proposals for Application in Vietnam. *East African Scholars Journal of Education, Humanities and Literature*. doi: 10.36349/easjehl.2023.v06i06.006
- Gligorović, M., Radić Šestić, M., Nikolić, S., & Ilić-Stošović, D. (2011). Perceptual-motor abilities and prerequisites of academic skills. *Specijalna edukacija i rehabilitacija*, 10(3), 405-434.
- Gliner, J. (1985). Purposeful activity in motor learning theory: An event approach to motor skill acquisition. *American Journal of Occupational Therapy*, 20, 251–252.
- Gokak, S. C., & Korawar, S. (2022). A case of global developmental delay (GDD) responding positively to homoeopathic treatment.
- Grissmer, D., Grimm, K. J., Aiyer, S. M., Murrah, W. M., & Steele, J. S. (2010). Fine motor skills and early comprehension of the world: Two new school readiness indicators. *Developmental Psychology*, 46, 1008–1017.

- Greutman, G. (2017). Basics of fine motor skills: Developmental activities for kids. Create space Independent Publishing Platform.
- Gulechha, K., & Gulechha, L. (2019). Learn, play, and develop fine motor skill using interchangeable fine motor activity appliqué on the garment. *Journal of Innovative Education*, 5(3), 89–97.
- Gupta, A. (2022). Global and local discourses in India's policies for early childhood education: policy borrowing and local realities. *Comparative education*, doi: 10.1080/03050068.2022.2062949
- Hanafiah, N.A. Mokodenseho, S. and Palayukan, H. (2023). Collage Media to Develop Fine Motor Skills in Early Childhood. doi: 10.51278/bec.v2i1.711
- Hashim, S. F. (2016). Fine motor skills of kindergarten children. *JOURNAL OF THE COLLEGE OF EDUCATION FOR WOMEN*,
- Houwen, S., Annetevander Putten, L. and Vlaskamp, C. (2016). The interrelationships between motor, cognitive, and language development in children with and without intellectual and developmental disabilities. *Research in Developmental Disabilities*, 53–54(2016), 19–31
- Houwen, S., Visscher, C., Koen, A. P. M., & Lemmink, E. H. (2009). Motor skill performance of children and adolescents with visual impairments: A review. *Exceptional Children*, 75, 464–492.
- Hughes, J., & Waickus, C. (2017). Fine motor skills. *Encyclopedia of Behavioral Medicine*. https://doi.org/10.1007/978-1-4614-6435-8_101310-1
- Hurlock, E. B. (1956). *Child Development* (3rd ed.). New York, NY: McGraw-Hill Book Company.
- Illapa, B. E. S., & Chico, G. E. S. (2024). Grapho-plastic program to improve fine motor skills. *Universidad Ciencia y Tecnología*, 28(Special), 77-87.
- Inayah, K. S. (2022). Developing children's fine motor skills through using recycled materials as useful tools in early childhood. *Early Childhood Research Journal (ECRJ)*, 4(2), 12670. <https://doi.org/10.23917/ecrj.v4i2.12670>
- Isnaini, R. S. and Katoningsih, S. (2022). Problematics of Improving Fine Motor Abilities of Children Age 5-6 Years. *Early Childhood Research Journal (ECRJ)*, doi: 10.23917/ecrj.v4i1.11857
- James K. H & Engelhardt L. (2012). The effects of handwriting experience on functional brain development in pre-literate children. *Trends in Neuroscience and Education*, 1, 32–42.

- Jasmon, N., & Salubin, M. R. (2022). Planning for the Implementation of Fine Motor Work Therapy Activities for Special Needs Pupils. In *Proceeding of International Conference on Special Education in South East Asia Region* (Vol. 1, No. 1, pp. 22-34).
- Jordán, O. R. C., & Infantes-Paniagua, Á. (2021). Fine Motor Skills and Academic Achievement: Special Consideration to Graphomotor Skills. In *Physical Education Initiatives for Early Childhood Learners* (pp. 55-69). IGI Global.
- Józsa, K., Zaw Oo, T., Borbélyová, D., & Zentai, G. (2023). Exploring the growth and predictors of fine motor skills in young children aged 4–8 years. *Neveléstudomány*, 13(9), 939-960. <https://doi.org/10.3390/educsci13090939>
- Jumiyati, & Hasanah, U. (2023). Implementation of coloring activities in early childhood to develop fine motor skills. *Journal of Childhood Development*, 3(1), 3139. <https://doi.org/10.25217/jcd.v3i1.3139>
- Kalla, G. C. M., Dongmo, U. L. T., Assob, J. C. N., Noubi, N. K., Mbopi-Keou, F. X., & Monebenimp, F. (2022). Determinants of the psychomotor development delay in children aged 12 to 59 months infected with HIV in Yaounde, Cameroon. *Pan African Medical Journal*, 42(1).
- Kamaruddin, I., Azis, A. A., Assabana, M. S., Ismunandar, A., & Meilina, D. (2022). Improving early childhood fine motor development through weaving activities. *Journal of Childhood Development*, 2(1), 3442. <https://doi.org/10.25217/jcd.v2i1.3442>
- Kamaruddin, I., Dalail, W., Mahendika, D., Mulisi, A. S., & Rif'at, M. (2023). Developing Fine Motor Skills in Early Childhood through Plasticine Media. *Journal of Childhood Development*, 3(2), 9-23.
- Karim, A. E. A., & Mohammed, A. H. (2015). Effectiveness of sensory integration program in motor skills in children with autism. *Egyptian Journal of Medical Human Genetics*, 16(4), 375-380.
- Khasanah, L. U., Mutma'innah, S., Mustaqimah, A., Salsabila, F., & Apriliani, E. I. (2023). The Role of Teachers in Improving Fine Motor Skills of Early Childhood through Finger Painting Activities. *Bulletin of Early Childhood*, 2(2), 59–65. <https://doi.org/10.51278/bec.v2i2.1006>
- Kurniati, K., Nurdin, N., and Nurasmawati, N. (2020). Improving Students' Cognitive and Affective Domains Students through Fostering Teacher Development. Doi: 10.24239/IJCIED.VOL2.ISS2.20
- Laura, D. L. M. (2013). Associations Between Low-Income Children's Fine Motor Skills in Preschool and Academic Performance in Second Grade. *Early Education and Development*, 24:2, 138-161.

- Lin, C. K., Meng, L. F., Yu, Y. W., Chen, C. K., & Li, K. H. (2014). Factor analysis of the contextual fine motor questionnaire in children. *Research in Developmental Disabilities*, 35(2), 512-519.
- Luo, Z., Jose, P. E., Huntsinger, C. S., & Pigott, T. D. (2007). Fine motor skills and mathematics achievement in East Asian American and European American kindergartners and first graders. *British Journal of Developmental Psychology*, 25, 595–614.
- Mandich, I., and Rubin, B. (2023). Enhancing Fine Motor Skills in Children with Mental Disabilities through Basic Lego-Based Interventions. *Law and Economics*, doi: 10.35335/laweco.v7i1.38
- Marr, D., Cermak, S., Cohn, E. S., et al. (2003). Fine motor activities in Head Start and kindergarten classrooms. *American Journal of Occupational Therapy*, 57(5), 550–557.
- Mayes S D, C., S. L., Bixler, E. O., & Zimmerman, D. N. (2009). IQ and neuropsychological predictors of academic achievement. *Learning and Individual Differences*, 19, 238-241.
- McPhillips, & Jordan-Black. (2007). The effect of social disadvantage on motor development in young children: A comparative study. *Journal of Child Psychology and Psychiatry*, 48, 1214–1222.
- Memišević, H., & Mačak, A. (2014). Fine motor skills in children with Down syndrome. *Specijalna edukacija i rehabilitacija*, 13(4), 365-377. <https://doi.org/10.5937/specedreh13-7465>
- Miller, P. H. (2022). Developmental theories: Past, present, and future. *Developmental Review*, 66, 101049. <https://doi.org/10.1016/j.dr.2022.101049>
- Mizan, T., Fasil, M., Yohannes, G., & Dires, B. (2024). Preschool teachers' attitudes towards inclusive education for students with autism spectrum disorders in public schools, Addis Ababa, Ethiopia: A multicenter cross-sectional study. *Research Square*. <https://doi.org/10.21203/rs.3.rs-4250775/v1>
- Mu'ammam, M. A., Soleh, M. and Awae, A. (2023). Development of Fine Motor and Visual Motor Skills in Preparing Early Childhood Writing. *Journal of Pedagogy and Education Science*, 2(02):116-123. Doi: 10.56741/jpes.v2i02.79.
- Musa, F. C., and Ahmad, N.A. (2019). Evaluating the Awareness of Fine Motor Skills in Teaching and Learning for Students with Special Education Needs (Learning Disabilities) among Teachers. *The International Journal of Academic Research in Business and Social Sciences*, doi: 10.6007/IJARBS/V9-I11/6649
- Needham, A. W., Nelson, E. L., Short, A. D., Daunhauer, L. A., & Fidler, D. J. (2021). The emergence of fine motor skills in children with Down syndrome. In *International Review of Research in Developmental Disabilities* (Vol. 60, pp. 113-151). Academic Press.

- Nega, A. (2013). Why public investment in pre-school education is needed to boost cognitive and school outcomes for the poorest children.
- Nhu, N.T. (2024). Current Status of Developing Fine Motor Skills for 5-6 Years Old Children through Shaping Activities at Chan Son Kindergarten, Yen Son district, Tuyen Quang Province. Deleted Journal, doi: 10.62225/2583049x.2024.4.4.3024
- Nukhayati, N. (2024). Improving children's fine motor skills through collage activities for Group A children at Bustanul Ulum Kutowinangun Kindergarten, Sendang Agung District, Central Lampung Regency, 2023/2024 academic year. *Journal of Technical Education*, <https://doi.org/10.31327/jte.v3i1.2178>
- Nur, A. H., Mokodenseho, S., & Palayukan, H. (2023). Collage media to develop fine motor skills in early childhood. *Journal of Early Childhood Development*, 2(1), 71–79. <https://doi.org/10.51278/bec.v2i1.711>
- Organization for Economic Development and Cooperation (OECD). (2016). *Enrolment rate by age*. Available at: https://stats.oecd.org/viewhtml.aspx?dataset_code=EAG_ENRL_RATE_AGE&lang=en. Accessed August 15, 2024.
- Orkin, K. Yadete, W. A., and Woodhead, M. (2012). (4) Ways forward for early learning in Ethiopia.
- Pagani, L. S., Fitzpatrick, C., Archambault, I., & Janosz, M.(2010). School readiness and later achievement: A French Canadian replication and extension. *Developmental Psychology*, 46, 984–994.
- Piek, J. P., Dawson, L., Smith, L. M., & Gasson, N. (2008). The role of early fine and gross motor development on later motor and cognitive ability. *Human movement science*, 27(5), 668-681.
- Pienaar, L.-L. v. N. d. T. A. E. (2016). The correlation between motor proficiency and physical activity in Senior Phase learners in the. *Potchefstroom area health sa gesondheid*, 21, 348-355.
- Polsley, S., Powell, L., Kim, H. H., Thomas, X., Liew, J., & Hammond, T. (2022). Detecting children's fine motor skills development using machine learning. *International Journal of Artificial Intelligence in Education*, 32, 991–1024. <https://doi.org/10.1007/s40593-022-00292-5>
- Pykhtina, N., Nikolaevna, J., Savel, E., & Aleksandrovna, V. (2014). Method of treating fine motor delay in infants.
- Quilapio, M. P., & Callo, E. C. (2022). The effect of in-service training programs on the professional development of public elementary school teachers. *International Journal of Research Publication*, 107(1), 1-12.

- Rai, K.R., Karki, T., and Karki, B.R. (2022). Motivational Strategies Employed by Pre-Primary School English Teachers in Nepal. doi: 10.3126/kmcj.v4i2.47738
- Revormis, R. and Saridewi, S. (2022).Teacher's Strategies in Developing 5-6 Years Old Kindergarteners' Fine Motor Skills: A Study in Pesisir Selatan, West Sumatra, Indonesia. GENIUS, doi: 10.35719/gns.v3i1.81
- Rigoli, D., Piek,J.P.,Kane,R.,& Oosterlaan,J. (2012). An examination of the relationship between motor coordination and executive functions in adolescents. *Developmental Medicine & Child Neurology*, 54, 1025–1031.
- Rosalianisa, R., Purwoko, B., & Nurchayati, N. (2023). Analysis of Early Childhood Fine Motor Skills through the Application of Learning Media. *IJORER: International Journal of Recent Educational Research*, 4(3), 309-328.
- Roslin, R., Bakar, K. A., & Madar, M. A. (2023). Teacher competence in the implementation of national preschool curriculum. *International Journal of Academic Research in Progressive Education and Development*, 12(1).
- Rosmayanti, L.E., Galaupa, R., and Adjidarmo, R.Dr. (2023). Comparison of Economic Status and Educational Status of Parents on Fine Motor Development In Children Aged 24 Months In The Child Poly Of Rsud Dr. Adjidarmo. *International Journal Of Health Sciences*, Doi: 10.55606/Ijhs.V3i1.1127
- Sagñay Illapa, B. E., & Soledispa Chico, G. E. (2024). Grapho-plastic program to improve fine motor skills. *Universidad, Ciencia y Tecnología*. <https://doi.org/10.47460/uct.v28ispecial.774>
- Saraswati, I.K. (2022). Developing Childrens's Fine Motors through Used Materials to be Useful Tools in Early Childhood. *Early Childhood Research Journal (ECRJ)*, doi: 10.23917/ecrj.v4i2.12670. <http://journals.ums.ac.id/index.php/ecrj>
- Sorgente, V., Cohen, E. J., Bravi, R., & Minciacchi, D. (2021). Crosstalk between gross and fine motor domains during late childhood: The influence of gross motor training on fine motor performances in primary school children. *International Journal of Environmental Research and Public Health*, 18(21), 11387.
- Souza, N. T., Belloni, G. G., Mattos, N. G., Brisotti, V. O., & Silveira, I. F. (2022). (Re) Learning fine motor hand movements with serious games. In *2022 Latin American Conference on Learning Technologies (LACLO)* (pp. 1-6). IEEE. <https://doi.org/10.1109/LACLO56648.2022.10013313>
- Strooband, K. F., De Rosnay, M., Okely, A. D., & Veldman, S. L. (2020). Systematic review and meta-analyses: Motor skill interventions to improve fine motor development in children aged birth to 6 years. *Journal of Developmental & Behavioral Pediatrics*, 41(4), 319-331.

- Suggate, S. P., Karle, V. L., Kipfelsberger, T., & Stoeger, H. (2023). The effect of fine motor skills, handwriting, and typing on reading development. *Journal of Experimental Child Psychology*, 232, 105674. <https://doi.org/10.1016/j.jecp.2023.105674>
- Syafril1, S., Susanti1, R., El Fiah, R., Rahayu, T., Pahrudin, A., Yaumas, N.E., and Ishak, N.M. (2018). Four Ways of Fine Motor Skills Development in Early Childhood
- Tesema, R., Belay, T., Negassa, D., & Jebessa, F. (2022). Teachers' beliefs and practices in reaching children's varied needs in early childhood education programs. *East African Journal of Education Studies*. <https://doi.org/10.37284/eajes.5.1.543>
- Tseng, M. H., Fu, C. P., Wilson, B. N., & Hu, F. C. (2010). Psychometric properties of a Chinese version of the Developmental Coordination Disorder Questionnaire in community-based children. *Research in Developmental Disabilities*, 31, 33–45.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wahyuni, C., & Mahmudah, S. (2018). The Relationship of Knowledge, Attitude and Behavior with Early Stimulation Smooth Motorcycle Development of 1-3 Years Old Age at Balowerti Village Kediri. In *The 2nd Joint International Conferences* (Vol. 2, No. 2, pp. 206-213).
- Wassenberg, R., Feron, F. J., Kessels, A. G., Hendriksen, J. G., Kalff, A. C., Kroes, M., ... & Vles, J. S. (2005). Relation between cognitive and motor performance in 5-to 6-year-old children: Results from a large-scale cross-sectional study. *Child development*, 76(5), 1092-1103.
- Wei, X. (2016). Research on status quo of fine motor skill of children aged 3 to 6: case analysis of kindergartens in nanchong, sichuan. *Asian Social Science*, 12(4), 125-130.
- Wilhelm I. Prehn-Kristensen A & Born J. (2012). Sleep-dependent memory consolidation– what can be learnt from children? *Neuroscience & Biobehavioral Reviews*, 36, 1718–1728.
- Wilson, B. N., Crawford, S. G., Green, D., Roberts, G., Aylott, A., & Kaplan, B. J. (2009). Psychometric properties of the revised Developmental Coordination Disorder Questionnaire. *Journal of Physical and Occupational Therapy in Pediatrics*, 29(2), 182–202.
- Wu, Y. (2024). Research on Factors Influencing Teachers' Willingness for Knowledge Sharing. doi: 10.62051/jf8yj5704. Challenges in Fostering Fine Motor Development in Preschool Settings
- Wuang, YP, Huang, CL., and Wu, CS. (2022). (2) Haptic Perception Training Programs on Fine Motor Control in Adolescents with Developmental Coordination Disorder: A Preliminary Study. *Stomatology*, doi: 10.3390/jcm11164755

Zewude, B. and Siraw, G. (2022). A critical analysis into the National Children's Policy of Ethiopia vis-à-vis the situation of vulnerable children. ETHIOPIAN JOURNAL OF PEDIATRICS AND CHILD HEALTH, doi: 10.4314/ejpch.v17i2.8

Zuccarini, M., Guarini, A., Savini, S., Faldella, G., & Sansavini, A. (2020). Do 6-month motor skills have cascading effects on 12-month motor and cognitive development in extremely preterm and full-term infants? *Frontiers in Psychology*, 11, 1297. <https://doi.org/10.3389/fpsyg.2020.01297>

ANNEXES

ANNEX I: CONSENT FORM

Education and Behavioral Studies School of Psychology, Developmental Psychology Program

My name is Sehani Bekele, and I am a student at Addis Ababa University, enrolled in the Education and Behavioral Studies School with a focus on Psychology within the Developmental Psychology Program. Currently, I am in the process of writing my MA thesis titled, “Enhancing Fine Motor Development and Supporting Struggling Children in Addis Ababa: A Case Study of Phase Academy Primary School.”

I would like to invite you to participate in this study by providing information regarding preschool children's difficulties with fine motor skills at your esteemed school. Your input is invaluable to the research.

Please note that participation in this study is voluntary, and if you choose not to participate, there will be no repercussions. Rest assured; all information provided will be treated with the utmost confidentiality. Your responses will only be used for the purpose of this research.

Any data shared with me under the condition of anonymity or confidentiality will be respected accordingly. Furthermore, the findings of this study will be shared with the participants and other relevant stakeholders in the community.

Thank you very much for considering participation in this study. Your contribution is greatly appreciated.

Data collection Date and Place

_____/_____

ANNEX II- INTERVIEW GUIDE FOR TEACHERS OF PRESCHOOL

Part-I Socio-demographic characteristics of informants

Sex: Male Female

Age: _____

Marital Status: Married Single Divorced Widowed

Educational status:

No Literate (read and writes)

High school Higher education

Work experience

Part II. Main Questions

1. Understanding of Fine Motor Skills:

- What do you understand by the term "fine motor skills"?
- How do you perceive the importance of developing fine motor skills in preschool children?

2. Observations and Practices:

- Do you have any concerns about your student's fine motor skills?
- What type of difficulty do you observe with daily tasks of your students, such as dressing, fastening buttons, tying shoes, using utensils, or brushing teeth?
- What kind of overly clumsy activity do you observe in your students? Please discuss your response.
- What kind of difficulty with handwriting do you notice in your students? Please elaborate your answer.
- Please brief any difficulty students face while throwing or kicking a ball?
- How do you explain your students' performance in picking up small objects (beads, coins) with ease and precision?
- Could you please explain your students' ability to string beads or thread a needle (if age-appropriate)?
- How does your student's motor coordination compare to other children of their age?
- How do you explain your students' performance in using scissors to cut along a straight line and staying on the line?
- Could you please explain your students' ability to build a tower of blocks at least 5 blocks high, maintaining balance?

3. Training and Knowledge:

- Have you received any formal training on how to develop fine motor skills in preschool children?
- What resources or materials do you use to support the development of fine motor skills?

4. Attitudes towards Fine Motor Skill Development:

- How important do you believe fine motor skill development is in comparison to other areas of learning for preschool children?
- What challenges do you face in promoting fine motor skill development in your classroom?

5. Methods and Interventions:

- What methods of fine motor skills development are used by preschool teachers?
- How do interventions improve students' fine motor development?

6. National & Pre-School-based Instruction Strategy Related to Fine Motor Development of Preschool Students

- How does the national curriculum support the development of fine motor skills?
- What specific activities or strategies does Phase Academy Primary School employ to develop fine motor skills?

5. Assessment and Monitoring:

- How do you assess and monitor the progress of your students' fine motor skills?
- What steps do you take if a child shows signs of delayed fine motor skill development?

6. Parental and Environmental Influence:

- In your experience, how do parental involvement and home environment affect the development of fine motor skills?
- Do you collaborate with parents or guardians to enhance the fine motor skill development of their children? If so, how?

ተያያዥ ቅጽ- 1- የፈቃደኝነት ፎርም

ስሜ ሴህኒ በቀለ ሲሆን በአዲስ አበባ ዩንቨርሲቲ በትምህርት እና በባህሪ ጥናት በደብዳቤ ሰነድ ሳይኮሎጂ ላይ ትኩረት በማድረግ የድህረ ምረቃ ተማሪ ነኝ። በአሁኑ ወቅት፣ “የፋይን ሞተር እድገትን በሁለንተናዊ መልኩ ለማሻሻል እና በዚህም ችግር ውስጥ የሚታገሉ ህጻናትን ለመደገፍ በአንደኛ ደረጃ ፊዝ አካዳሚ ት/ቤት” በሚል ርዕስ የማስተርስ ዲግሪዬን ለመጻፍ በሂደት ላይ ነኝ።

እርሶ የሚያስተምሩበት ት/ቤት ለዚህ ጥናት ስለተመረጠ፣ በት/ቤትዎ ውስጥ በሚሰጡ የቅድመ መደበኛ ትምህርት ተማሪዎች ላይ የሚስተዋል የሞተር ክህሎት ችግርን በሚመለከት መረጃ በማቅረብ በዚህ ጥናት ላይ እንዲሳተፉ ልጋብዘት እወዳለሁ። የእርስዎ ግብአት ለዚህ ምርምር በጣሙን ጠቃሚ ነው። በዚህ ጥናት ውስጥ መሳተፍ በፈቃደኝነት ላይ የተመሰረተ ነው። በመሆኑም ላለመሳተፍ ከመረጡም፣ ምንም አይነት አሉታዊ ተጽኖ አይኖርም። መረጃ ለመስጠት ከተስማሙ ሁሉም የቀረቡት መረጃዎች በከፍተኛ ሚስጥራዊነት ይያዛሉ። የእርስዎ ምላሾችም ለዚህ ጥናት ብቻ ጥቅም ላይ ይውላሉ።

ከእኔ ጋር የተጋሩት ማንኛውም መረጃ እና የመጠሪያ ስሞትም ጭምር ሚስጥራዊነቱ በዚህ መሰረት የተጠበቅ ይሆናል። በተጨማሪም የዚህ ጥናት ግኝቶች ለተሳታፊዎች እና ለሌሎች የሚመለከታቸው የማህበረሰቡ ባለድርሻ አካላት ይጋራሉ። በዚህ ጥናት ውስጥ ለመሳተፍ ስለሰቡ በጣም እናመሰግናለን። ስለበረከቱት አስተዋፅዖ ክብረት ይስጥልን።

መረጃው የተሰበሰበበት ቀንና ቦታ
_____/_____

- የተማሪዎችን ትንንሽ ቁሳቁሶችን (ዶቃዎች፣ ሳንቲሞች) በቀላሉ እና በትክክል በማንሳት ያደረጉትን አፈጻጸም እንዴት ያብራራሉ?
- እባክዎን የተማሪዎ ዶቃዎችን ወይም መርፌን (ከዕድሜ ጋር የሚስማማ ከሆነ) የመገጣጠም ችሎታን ማስረዳት ይችላሉ?
- የተማሪዎ ሞተር ቅንጅት ከሌሎች የእድሜ ልጆች ጋር እንዴት ይነጻጸራል?
 - o ቀጥ ያለ መስመር ለመቁረጥ እና በመስመሩ ላይ ለመቆየት መቀሰችን በመጠቀም የተማሪዎን አፈፃፀም እንዴት ያብራራሉ?
 - o ተማሪዎች ቢያንስ 5 ብሎኮች ከፍ ያለ፣ ሚዛኑን ጠብቆ የመገንባት ችሎታን ማስረዳት ይችላሉ?

3. ስልጠና እና እውቀት;

- o በመዋለ ሕጻናት ልጆች ውስጥ የፋይን ሞተር ክህሎቶችን እንዴት ማዳበር እንደሚቻል መደበኛ ሥልጠና ወስደዋል?
- o የፋይን ሞተር ክህሎቶችን ለማዳበር የትኞቹን ሀብቶች ወይም ቁሳቁሶች ይጠቀማሉ?

4. ስለ የፋይን የሞተር ክህሎት እድገት ያሉ አመለካከቶች:-

- o የፋይን የሞተር ክህሎት እድገት ከሌሎች የቅድመ ትምህርት ቤት ህጻናት የትምህርት ዘርፎች ጋር ሲነጻጸር ምን ያህል አስፈላጊ ነው ብለው ያምናሉ?
- o በክፍልዎ ውስጥ የፋይን የሞተር ክህሎት እድገትን ለማስተዋወቅ ምን ተግዳሮቶች ያጋጥሙዎታል?

5. ዘዴዎች እና ስልቶች

- o በቅድመ ትምህርት ቤት መምህራን ምን ዓይነት የፋይን ሞተር ክህሎት ማዳበር ዘዴዎች ይጠቀማሉ?
- o ስልቶች የተማሪዎችን የሞተር እድገት የሚያሻሽሉት እንዴት ነው?

6. ከመዋለ ሕጻናት ተማሪዎች የሞተር እድገት ጋር የተዛመደ ሀገራዊ እና ቅድመ-ትምህርት-ተኮር የትምህርት ስልት

- o ብሄራዊ ሥርዓተ ትምህርቱ የፋይን የሞተር ክህሎቶችን ለማዳበር የሚረዳው እንዴት ነው?
- o የደረጃ አካዳሚ አንደኛ ደረጃ ትምህርት ቤት የፋይን የሞተር ክህሎቶችን ለማዳበር ምን አይነት ተግባራትን ወይም ስልቶችን ይጠቀማል?

7. የወላጅ እና የአካባቢ ተጽእኖ;

- o በተሞክሮዎ፣ የወላጆች ተሳትፎ እና የቤት አካባቢ የፋይን የሞተር ክህሎቶች እድገት ላይ ምን ተጽዕኖ ያሳድራሉ?
- o የልጆቻቸውን የፋይን የሞተር ችሎታ እድገት ለማሳደግ ከወላጆች ወይም ከአሳዳጊዎች ጋር ትተባበራላችሁ? ከሆነ እንዴት?

8. ግምገማ እና ክትትል:-

- o የተማሪዎችን የፋይን የሞተር ክህሎቶች እድገት እንዴት ይገመግማሉ እና ይከታተላሉ?
- o አንድ ልጅ የዘገየ የፋይን የሞተር ክህሎት እድገት ምልክቶች ካሳዩ ምን እርምጃዎች ይወስዳሉ?

