



INTERNATIONAL JOURNAL OF TRENDS IN EMERGING RESEARCH AND DEVELOPMENT

INTERNATIONAL JOURNAL OF TRENDS IN EMERGING RESEARCH AND DEVELOPMENT

Volume 4; Issue 1; 2026; Page No. 57-71

Received: 07-10-2025
Accepted: 17-12-2025
Published: 23-01-2026

Examining the Influence of Play on the Physical and Social Development of Early Childhood: A Study at Pan Kan Pre-School, Hsihseng Township, Shan State

¹Nang Hseng Noon and ²Dr. Aye Aye Myint

¹Master of Education, Department of Educational Leadership and Management, Institut Brittany d'Enseignement Supérieur, Paris, France

²Ph.D., Department of Educational Psychology, Graduate School of Education, The University of Tokyo

DOI: <https://doi.org/10.5281/zenodo.18454319>

Corresponding Author: Nang Hseng Noon

Abstract

This study aims to examine the Influence of Play on the Physical and Social Development of Early Childhood: A Study at Pan Kan Pre-School, Hsihseng Township, Shan State. Early childhood development in terms of physical and social development is important because it lays the groundwork for learning and aids cognitive or mental development. Child development in early stage teaches patience and teamwork with self-regulation. The other important things are boosting of physical and social development and shaping identities that assists identify any problem area early. Studying the early childhood development through playing in Pan Kan Pre-School in Hsihseng Township aims to investigate the childhood physical and social development through the effect of playing facilities provided by Pan Kan Pre-School in Hsihseng. In this study, researcher uses observation methods by choosing a specific playing game named "Building Blocks" from the month of February to March 2025. By the previous studies, playing yard, emergency aids, teaching aids, childcare and nutrition supports, other kid facilities are found as important for child playing with respect to physical and social development. To show significant influence of playing, the pair-test analysis method was conducted by comparing mean values of pre observation and post observation times. The study finds that there has significant relationship of child playing and physical and social development. Child playing is a strongly and significantly impactful factor on the physical and social development during the childhood period. Since children love play, researchers would like to suggest ways to improve children's learning at the chosen Hsihseng through play-learn methods during their childhood ages. For safe playing, it is recommended that educators, staff, and school administrators be more attentive to their child's physical, social and emotional needs, and thus parents feel trust and confidence in the Pan Kan preschool, leading to a more collaborative relationship between parents and educators of that preschool.

Keywords: Examining, Influence, Physical, Social Development, Early Childhood

Introduction

Early childhood care and education (ECCE) are the early learning practices of children who are ages from birth to 8 years. Nowadays, early childhood education becomes important for it capitalizes on the rich brain development for these children (UNESCO, 2023) [25, 26]. Being quality pre-primary education, it is the foundation of a child's journey. Early childhood care and education supports good health and nutrition, learning and educational success, social-

emotional learning, and economic productivity throughout life. Pre-school children like to play and feel enjoyment of learning while playing (San, Myint, & Oo, 2021) [21]. Early childhood physical development involves five stages: oral, anal, phallic, latency, and genital. Preschoolers focus on understanding genital pleasure from fantasy.

This nursery education is important, and it supports to a child development. Going through physical development, child gains self-confidence. The early childhood education

is one of the United Nations Sustainable Development Goal 4. Adopting by the most nations, early childhood education becomes universal access to quality pre-primary education for every child by 2030 (Bourne, 2018) [5]. This highlights the importance of primary education that all the children have access the quality early childhood development. The primary education system is needed to be effective to ensure children's optimal learning and development in early childhood. Still today, there are many problems facing in a learning crisis. UNICEF reports that millions of children, even after years of primary school, still struggle with basic reading, writing, and math skills (UNICEF, 2024) [27].

In Myanmar, it can be divided into three strategic zones: dry zone, delta zone, and hilly zone. This study covers the physical and social development of early childhood through playing habits in Pan Kan Pre- School, Hsihseng Township in Shan State, which is hilly region. Comparing to delta region, the hilly regions are least developed regions for its difficulties of travel, with cool weather and terrains compared to other regions of Myanmar. People living in Shan state is about 10% of the total population in Myanmar. Population living in Shan state is larger than Yangon, which is the former capital of Myanmar. Shan State had a population of approximately 5.82 million, while Yangon had around 5.16 million (Wikipedia contributors, 2024) [29]. According to the current KG+12 educational systems in Myanmar, there are six years of primary school, including KG (kindergarten), four years of middle school and three years of high school. Oct 29, 2021.

Early childhood education and preschools in Myanmar are open to children aged between two and five years old. However, the difficulty of travel from one place to another in this hilly region, it is harder to access education for all people. There are pre-schools run by Government and private sector. Pan Kan Pre-school is providing to develop social- emotional learning through sing, play, and learn of the pre-school aged children. It is also emphasis on promoting positive physical, social, building motor, cognitive, and emotional development for the children in Shan region.

Parents want their children to obtain benefits from education. Preschool teachers are teaching children about fundamental concepts, such as colors, letters, numbers, names of family members, and shape. Preschools are trying to encourage children engaging in creative methods of learnings like playing and learning, arts and crafts, and storytelling. These private, public and non-profit organizational preschools provide clean and safe classrooms and play yard and collaborate with parents to track children progress in terms of physical, emotional, cognitive, and social.

Pre-school in Myanmar

Myanmar (Burma) is a country in Southeast Asia. The education system is operated by the Government of Myanmar (GoM) under the Ministry of Education (MoE). In Myanmar, preschools are generally overseen by the Department of Social Welfare, which is part of the Ministry of Social Welfare, Relief, and Resettlement. This department focuses on early childhood care and education, ensuring that young children receive proper developmental support before entering formal schooling.

Preschools in Burma are for children over 2 years old, with kindergarten starting at age 5 and primary, lower secondary, and upper secondary schools under the Department of Basic Education, with kindergarten starting at 5 years. Preschools in Myanmar include both private and public institutions. For operating private preschools, Department of Social Welfare has been operating for a purpose of social welfare development. There are 32-day care centers and 10 preschools under the Ministry of Social Welfare. The Department of Basic Education in Myanmar oversees 3,115 preschools, which cater to 80,658 children and are staffed by 4,571 teachers (Stenning, 2024) [22]. Parents are unable to take care of their children all the time at present due to the changing economic systems and social patterns since women's participation in job placement as working mothers.

Pan Kan Pre-School in Hsihseng Township

Pan Kan Pre-School is situated in Hsihseng Township, Taunggyi District, Shan region. The school offers prescribed Government Curriculum from preschool to Grade 5, in an accordance with ministry of education guidelines. The school serves diverse ethnic community of approximately (58) numbers of students, aiming to provide physical, mental, cognitive, social and educational development of children in their early age. The typical age range accepted at Pan Kan Pre-school is ranging from 3 to 6 years. Parents can enroll their children in before primary school whose ages are younger than kindergarten age. School administrators and parents believe that preschool is a place for a child to start social interaction with other children. Children learn about their environment and verbal communication while attending in that preschool.

Significance of Children Play in Pan Kan Pre-School in Hsihseng Township

This study focuses on children playing. This is important as a key to children's learning, development, and confidence, as well as wellbeing. Pan Kan Pre-school is situated in Hsihseng township in Shan State. For continuous physical and social development of children, school committee, parents, and teachers meet regularly. Unstructured play and structured play are the main types of play which are important for child's physical and social development. Community mobilization sessions are also aiming for the participants of parents in their children development. To listen to the feedback and advices from parents, school teachers visit to the students' home.

Play lies in its abilities to improve cognitive, physical, social, and emotional well- being of children. With the involvement of parents, Pan Khan Preschool has revolving fund for creating safe environment for child playing so as to enhance confidence and resilience. Knowing the importance of the teachers' teaching skills, school principal has designed capacity building trainings. The high community participation is one of the reasons in choosing this Pan Kan Pre-school, relating to the examination of physical and social development through playing. For a child, all the parents and school administrators believe as important to development both social and emotional learning (SEL). This takes part as major component of early school readiness and healthy child development (Ferreira, Reis- Jorge, & Batalha, April 2021) [10].

In Myanmar, local communities and parents actively participate in childhood development due to insufficient support from the Social Welfare Department. And most of private preschools are not big class sizes, but they have huge factors in educational success. Pan Kan Pre-School is also offering private pre-kindergarten programs including play-based learning which have consistently delivered quality early childhood education. This study tries to prove play is important for physical and social development of early childhood in Pan Kan private pre-schools together with their quality of teaching, childcare, and consistent delivery of quality of early childhood education as a well foundation before going to academic learning.

Scope of the study

In this study, it involves children from the age of 2 years to 5 years who are attending in Pan Kan Pre-School in Hsihseng Township, Shan State. There are many hands-on exploration activities like building blocks, puzzles, or pretend play. The study focused only on building blocks hands-on exploration activity. Among total students, the study involved 25 numbers of boys and other 25 numbers of girls. The observation period is from the February 2025 to March 2025.

Definition of Key Terms

Child Playing: Child play refers to the activities children engage in for enjoyment and exploration, which are essential for their development. Some of the forms of play include imaginative play, physical play, constructive play, social play, exploratory play, and so on. As of today, the play-sign-learn method is a widely recognized and effective approach to children's education, blending play and learning seamlessly to foster development and growth. Play-based activities encourage exploration through games and hands-on tasks to develop creativity, problem-solving, and collaboration skills. Play is a natural and vital way for children to learn about the world, develop skills, and express themselves

Building Block Hand-on Exploration Activity

Hands-on Exploration involves the playing activities like building blocks, puzzles, or pretend play which allow kids to explore concepts such as spatial reasoning, problem-solving, and creativity. A Building Block Hands-on Exploration Activity is a fantastic way to encourage learning through play. Example of building block activity of 'Build the Tallest Tower', it can enhance spatial awareness, problem-solving skills, and teamwork. The children are given a pile of building blocks. There has challenges for children to build the tallest tower they can within a given timeframe (e.g., 10 minutes) or without a time limit for free exploration. Children are encouraged to experiment with different shapes and structures to see what works best for stability and height.

Physical Development of Early Childhood

The physical development of early childhood refers to the rapid growth and refinement of motor skills, coordination, and physical abilities in children typically between the ages of 2 and 6 years (Tyler, 2020) [24]. Early childhood is a crucial period for children to develop basic locomotion and

object control skills. Children engage in activities like running, jumping, climbing, and balancing, improve hand-eye coordination, and develop coordination and balance. Regular physical activity and adequate sleep are crucial for overall development.

Social Development of Early Childhood

Social development during early childhood is a crucial stage where children begin to build relationships, understand emotions, and develop social skills. Children form bonds with peers, caregivers, and family members through playgroups, learning to share, cooperate, and resolve conflicts. They develop empathy, social norms, and communication skills, enhancing verbal and non-verbal cues, respect, and independence in group dynamics.

Section 2: Research Problem Identifications and Problem Statement

Research Problem Statement: This is a study of childhood development in early stage. The study is to know how preschools are managing student learning to the effectiveness in physical, cognitive, linguistic, and socio-emotional development of a child before to go to school. The success of these preschools suggests the incorporation of play as a pedagogical tool. Many researchers conducted the role of play in children's development. Manas, (2020) [15], Darling-Churchill & Lippman (2016) [8], and many other researchers conducted early childhood social and emotional development to child functioning and well-being. Whitebread, *et al.*, 2017 [28] examined the role of play in children's development. Playful learning, which involves children playing with others, watching, and learning from them, has been found to significantly enhance their narrative and writing skills.

Darling and Lippman (2016) [8] explained that the schools are emphasizing social and emotional competencies, and are increasingly recognized as critical for children's success, in school as well as in other settings. The children's adaptive skills were linked to the amount of time spent in active physical play. The indicators aim for the development of childhood in the social relationships, and knowledge of families and communities. For the optimal development of physical, social and emotional, it is needed to understand the influencing factors towards the development of Early Childhood. It is needed to examine how do children play during their preschool-age lead to optimal development of physical and social.

There are different types of children's playing: physical play, play with objects, symbolic play, pretend play, games with rules, and many other types of plays. In providing physical and social development for young children, policy makers are requiring that federally sponsored programs and services ensure that this aspect of development is supported. Manuilenko (1975) [30] found that children perform tasks significantly higher in play than in non-playful contexts, as seen in a study of 3-7-year-old children standing sentry. School administrators needed to know how do physical and social development relationship with child functioning and well-being. By exploring the parents' options on that of the play, sing, and learn practices at Pan Kan Pre-School, Hsihseng Township.

There are many influencing factors of elements on the

pattern growth of an infant until adulthood. There are also many studies which have approved children playing is strongly support to social, physical, and emotional development. This study also hopes to reveal play, sing, and learning practices of Pan Kan preschool could be effective ways in emotional, intellectual, moral, social and physical development of children in that Shan region.

Since, there is a high involvement of community in the development of the children who are attending in Pan Kan Pre- School, the school management team and instructional leaders could review their weaknesses and using the strengths of teaching in children play which is not only reflecting cognitive skills but also enabling children to connect intellect with emotions, allowing them to navigate daily life and problems.

Research Aims

The major aim of the study is to examine the influence of play on the physical and social development of early childhood in Pan Kan Pre- School, Hsihseng Township, Shan State. It is to examine how children playing is related to physical and social development.

Research Objectives

The specific objectives of the study are:

1. To study how children improve physical development through building blocks hand-on play activity,
2. To study how children improve physical development through building blocks hand-on play activity,
3. To examine the influence of play on the physical and social development of early childhood.

Significance of the study

Playing children means try things out and develop ideas. Play is difficult to define. In a play, child acts, talks, do, based on their own knowledge, and experiences. Children's playing lies in its abilities to improve cognitive, physical, social, and emotional well-being of children. For that important role of children playing, the study of the children-play relating to the social and emotional development of preschool aged children is a significant study. Most parents and teachers love most about listening and watching children laugh, play, and discover something new in every day.

The child in early years status plays as an important role for parents, teachers and caregivers (San, Myint, & Oo, 2021) ^[21]. The field of early childhood assessment is expanding due to increasing accountability demands in publicly funded programs. The process involves tracking children's developmental progress over time to provide a comprehensive understanding of their skills and abilities, and to inform early childhood program delivery. Parents and teachers understand that play is effectively incorporating and supporting in early learning programs.

This is a common habit that the parents will watch their children play and sometime some parents join in their playing activity (Dina, 2024) ^[9]. Children grow most rapidly during the first three years of life. The children development rate is comparatively slow when child age is in the middle childhood, i.e., from 6 - 12 years. Physical play is linked to exercise, health, academic progress, cognitive self-regulation, social competence, emotional awareness

development, and learning and attention improvement. Pretend play helps children learn from others, improves creative thinking, and provides opportunities for sleep and physical activity, thereby preventing childhood obesity and promoting overall development. Playing with others and interacting in social environments make child for the feeling of unafraid which is important feeling for building confidence for a child during their childhood.

The physical and social development of children is an important role for parents and teachers for emerging physical and social skills in early childhood stage. Tan and Dobbs-Oates' (2013) ^[23] research indicates a strong relationship between preschoolers' emerging literacy and their social and emotional development. Opstoel, *et al.*, 2020 ^[19] studied the school-aged children's and youth's (between the age of 6-to 18-year-olds) personal and social development within the context of physical education and sports.

The physical and social development help to regulate children behavior and emotions with the establishment of their personality and personal character in the future. Whatever the regions are differing, all the parents want their children to be physical, social, and emotional development which are important to grow up with their ages and to be ready for entering primary school. The physical development includes health and wellbeing, social and emotional development. Physical development help children to form positive relationships and gain confidence and cognitive abilities.

Playing games can fill up spare time and lead to changes in knowledge, attitudes, behaviors, and skills. Active play is crucial for children' physical development like crawling and walking. Since, play is important for physical and social development in children and parents, the study at physical and social development of early childhood through playing in Pan Kan Pre-School, Hsihseng Township, Shan State is an important study. The findings could be helpful to the school administrators, teachers, parents and school community for its strong community involvement in that school.

Section 3: Selection and Application of Theories, Models, Techniques, and Tools

Literature Review: In this chapter, it presents the various literature reviews relating to the early childhood education. The conceptual framework for this study is concluded based on these previous literatures which are published and unpublished in the journals, internet web pages, and from school textbooks.

Early Childhood Development

Children could not avoid play (Lai N. *et al.* 2018) ^[14]. People are growing up from child. It absolutely fascinating process of step-by-step human growth and development passing from birth to adulthood. Playing provides physical, social, and emotional development required for human growth. The first stage of childhood is called infancy stage. It can be noted from birth to weaning. In that growth stage of infancy, it is a period of rapid physical growth and motor skill development from birth to weaning.

It is then move to childhood stage. In this childhood period, children develop language, social skills, and begin formal

education from weaning to the end of brain growth. From the end of childhood to adolescence, individuals continue to grow and form more complex social relationships. Adolescence, spanning from puberty to sexual maturity, is a period marked by significant physical, emotional, and intellectual changes.

Play often involves social interaction of various kinds. Play with objects begins as soon as infants can grasp and hold on to them (Whitebread, *et al.*, 2017) [28]. Early childhood development, especially birth to three, is crucial for educational success, economic productivity, responsible citizenship, lifelong health, strong communities, and successful parenting for future generations. With the change in environment, the children learning is also changed in the past 20 years (Murphy, 2019) [18].

Early childhood development is a critical phase that significantly impacts a child's long-term growth. Physical and social development during this period is physical development means that the child's strength and physical skills. The physical development involves motor skills development, such as crawling, walking, and fine motor control. In this kind of physical development, proper nutrition, exercise, and sensory experiences play a crucial role in physical development.

Early childhood is a crucial period for social and emotional development, requiring children to learn about their emotions and others. Nurturing and responsive care are essential for healthy emotional growth. Children learn about their emotions and those of others. Nurturing and responsive care foster healthy social and emotional development. Interactions with caregivers and peers shape social skills, empathy, and self-regulation. All domains of child development-physical, cognitive, social-emotional, and linguistic-are interconnected and mutually supportive.

Child Playing

Children's play plays a crucial role in their development in various ways. Games and puzzles foster critical thinking and problem-solving in children, while pretend play and creative activities like drawing and building stimulate imagination. Interacting with peers during play enhances vocabulary, communication and social skills. Play is common for childhood however it is difficult to explain and accepted as an aspect of developmentally appropriate practice.

Play is crucial for children's emotional development, promoting self-expression, confidence, and self-esteem. It also provides stress relief, allowing children to relax and engage in fun activities, contributing to overall well-being. Engaging in play brings joy and happiness, fostering overall happiness and well-being. Physically active play provides children with exercise and the consequent health benefits for these important roles, play is an essential part of childhood that supports physical, cognitive, social, and emotional development. Encouraging children to play not only helps them grow but also ensures they enjoy a happy and healthy childhood. as children grow up, physical play tends to transform into sports and games. During the play, children make choice about what to play with, how to use materials such as toys, where or not there will be other children involved. Play fosters children in all domains.

School Facilities on influencing Physical and Social Development of Early Childhood Education: When it is time to choose early education for the child, parents want the best options available. Private Preschool programs are well known for their consistently delivered quality early childhood education for children between the ages of two and four over the years.

Playing Yard on Physical and Social Development of Pre-School Students

Child development refers to the biological, psychological, and emotional changes that occur between birth and adolescence. It is divided into three stages: early childhood, middle childhood, and late childhood. Early childhood, spanning from infancy to six years old, is crucial for milestones like first words, crawling, and walking. Middle childhood, or ages 6-12, is considered the most crucial stage. Adolescence, starting around youth, typically occurring between 12-13 years of age.

Physical play is crucial for children as it fosters connections between nerve cells and the brain, improves motor skills, socialization, language, creativity, and problem-solving, and strengthens bones and muscles. Activities like active play, cycling, and dancing promote physical fitness and overall well-being, ensuring children stay active in later life. Playing in yards is crucial for children's development. It promotes physical health, encourages curiosity, enhances learning, and supports mental well-being. Outdoor play helps kids develop motor skills, balance, coordination, and fosters creativity and critical thinking. It also positively influences behavior and mood by reducing anger and aggression.

Emergency Aids and Teaching aids on Physical and Social Development

Learning is a deliberate action aimed at changing attitudes and behaviors. According to Ariani and Marleni (2023) [3], learning process becomes less active due to a lack of interaction between education providers and students. Especially, students are difficult in learning of English language, and thus it become less active between teachers and students. In that condition, it is necessary teaching aids so as to enhance student learning outcomes. The use of experimental method, Ariani and Marleni (2023) [3] conducted research in the Class V students in Indonesia. Their study revealed that the effective use of unit teaching aids benefited the students.

Hall Seminar Room on Early Childhood Student Learning:

Barrett, *et al.* 2019 [4] explain the quality of education infrastructure relating to child development is crucial for student learning. Planning effective learning spaces involves a multidisciplinary approach that involves the involvement of teachers, parents, and children. These schools are not only looking at children's education but also growth and behavior of children. The learning process is the interaction of students with their environment. The good social interaction allows each personnel to create a relationship pattern without anything disturbing their interaction. Environmental conditions influence children's

physical, cognitive, socio-emotional, and behavioral development (Khatimah, 2021) [13]. A positive classroom environment enhances learning and encourages students to improve in any situation.

Painting Room on Early Childhood Student Learning

Painting room provides children's development in a way that not only helps their creative development, but it also stimulates their brain. Invalid source specified. It provides children with vast amount of learning in a way that gripping fine pincer or learning about color mixing. Messy painting is a popular activity for children, allowing them to express themselves and develop creativity. Young children use their bodies for exploration, while non-mobile children require additional support to access resources. The endless opportunities for painting make it essential to make it accessible to children. Painting is not just had to be sitting at the table and paintbrush, it is about creative and offer it to children in relating for developing children's social skills. Providing painting room is a great way of extending early childhood development opportunities.

Child Care, Nutrition on Early Childhood Student Learning

Child's meals are important. Children learn as much about eating as they do about play or other forms of sociability. Breastfeeding saves children from diseases, boost brain development, and a safe nutritious food source. Young children's diets are frequently comprised of grains – with little fruit, vegetables, eggs, dairy, fish or meat. Inversely, Poor diets in early childhood can lead to deficiencies in essential vitamins and nutrients. It is challenges in meeting children's nutrients. There are the increased focuses on young children's eating practices and healthy eating interventions. UNICEF promotes access to nutritious, safe and affordable foods for children.

Other Kid Facilities

When it comes to early childhood development, creating an enriching learning environment is crucial. Some must-have facilities in preschools that enhance the quality of education are library, creative area, open space classroom, outdoor playing area, and nature corner. The library is designed to foster reading habits in children by providing a comfortable environment for independent book exploration. The Creative Area is a creative space for children to express themselves through drawing, play, and exploration. It offers materials like coloring pencils, clay, leaves, and recycled items, fostering fun and learning. The Open Space Classroom allows for various learning activities, allowing movement and adaptability. The Outdoor Playing Area is vital for physical development and gross motor skills, featuring swings, slides, and climbing structures. The Nature Corner introduces children to the natural world, setting up a small garden with plants, rocks, and sensory elements. These facilities contribute to a holistic learning experience, nurturing cognitive, social, emotional, and physical growth.

In this study, the dependent variable of child functioning and wellbeing is affected by the children playing in the yard, support of emergency aids, teaching aids, hall seminar room, painting room and other kid facilities of Child Care

Services of Pan Kan Pre-School, through physical and social development of early childhood. It is measured the responses of parents on these independent factors on their children physical and social development. The study wants to reveal how teachers in Pan Kan Pre- School implement play in their classrooms. Parents eager their children not to remain behind in problem solving and critical thinking skills of their children.

Characteristics of Child Physical Development

The child physical development can be measured in a numerous way: which can be observed by the child's abilities in terms of: able to stand on one foot, able to go up and down stairs without support, able to kick a ball forward, able to kick a ball with a side step, able to throw a ball over the head, able to catch a ball many times, able to move forward and backward well, able to run and play well, able to jump, skip, and throw proficiently, able to climb to a height, able to balance on a rope, able to walk on low and high wooden beams without falling, keeping the body balanced, can ride a small tricycle, can lift an object weighing as much as a 3 to 5-year-old child, able to sit well without support, able to hold pencils and crayons correctly, able to turn the pages of a book one by one, able to arrange books, able to copy a square shape, able to draw 2-4 parts of the human body, able to use stickers, able to draw circles and squares, able to copy some uppercase letters, able to copy some triangular and geometric shapes, able to draw a person with body parts, able to dress and undress independently, able to thread beads or objects onto a string, able to pick up small objects, able to open and close bottle caps and lids, able to pour water without spilling, able to build towers with more than 6 wooden blocks, able to turn paper pages. Child physical development can be observed on the child's behaviors while child's playing.

Engaging child playing activities like running, jumping, climbing, and dancing during pretend play helps strengthen large muscle groups and improve coordination and balance. Regularly observing these aspects can provide a comprehensive understanding of a child's physical development and help identify areas where they may need support or encouragement. That is, the characteristics of child playing relating to physical development can be observed time by time child playing behavior.

Research Methodology

In this section, it presents the use of the research methods and designs relating to the child playing activities with respect to physical development among the children of Pan Kan Pre-school, Hsihseng Township. That is, the major research methodology involves a researcher's experimenting and observing the physical characteristics with respect to child's playing games, collecting and analyzing of the observed data, and delivery of research conclusions.

Research Methods

There are different ways to conduct research. They are qualitative research, quantitative research, mixed of quantitative and qualitative research, descriptive research, experimental research, correlational research, and so on. Educational research methods include planning, styles, strategies, and data analysis.

This type of research is experimental research design. It involves observations of the children playing in different time: pre-observation before playing, and post-observation after playing.

The use of experimental research design, it is to investigate the large as well as small populations to understand sociological and psychological variables. In this study, it involves samples who are withdrawn from the total children who are attending in Pan Kan Pre- School, Hsihseng Township.

In this descriptive type of research, the collection of data is from two sources: primary data and secondary data. In the collection of the primary data, the researcher examines the children's behavior before, during, and after the children play any of the physical and social development of early childhood in Pan Kan Pre- School, Hsihseng Township. Using the descriptive research method, it could lead to enable the researcher to describe the children's ages, numbers of family members, position in the family.

Research Design

The study mainly uses descriptive research design and experimental research design. Researcher observes pre, during, and post children's behaviors which are rated based on 3 Point Likert Scales of 0= Cannot perform, 1= Fair, and 2=Actively perform.

Sampling Technique

The sample are chosen from total children at Pan Kan Preschools. In this study, researcher observes on 50 numbers of children. The focused children were examined their physical and social development level in pre-observing and post-observing behaviors responded to specific child playing game.

Source of Data

The study mainly focused on primary data collection. The information was obtained by observing the child's behavior pre-observing during experience, and post-observing child's manner. Secondary data are also collected from the previous literatures, school textbooks, and research papers from schools and from websites.

Data Collection Method

In the collection of survey data, researcher designed the child's behaviors which are turns into checklist format. After completing the check-lists, these collected data were examined by excel software format, and child's abilities were measured.

Questionnaire

In this study, survey questionnaire is major tool to collect information from children of Pan Kan Pre- School. The questionnaire is the checklist form for observing children's abilities to play the game.

Data Analysis Method

Collected data are analyzed by the experimental research design. Respondents' information is transformed into total frequency, percentage, pie charts and bar graphs. Researcher's check-list is measured by the excel software method.

Preliminary Literature Review

There are numerous definitions and theories of what children playing. Being an important of children playing which is related to their physical and social development, many researchers conducted the child playing to be certain of the effectiveness of their growing age with maturity.

Martinez (2019)^[16] studies the benefits of play for the social and emotional development of children in kindergarten in the fourteen kindergarten teachers in Monterey County in California State. Martinez (2019)^[16] focuses the increasing push to emphasis on academics at a young age and take play out of learning. In this study research, it shows children play is beneficial for the physical well-being, social and emotional development of children beginning in early childhood (Milteer & Ginsburg, 2012)^[17]. Child playing aids to learn self-control, emotion-regulation, communication, conflict resolution, and other more benefits to children development (Martinez, 2019)^[16].

Roslan, *et al.* (2022)^[20] conduct a systematic review analysis with related to three major developments of preschoolers, namely physical, cognitive and social-emotional factors especially in Malaysia. Preschoolers' physical development is primarily influenced by biological body growth and features, but external factors like exercise, nutrients, and sleep can enhance it. Covid-19 has significantly impacted preschoolers' socio-emotional development, affecting their well-being, access to medical facilities, and causing fear on parents. Cognitive development, on the other hand, involves reasoning, thinking, and understanding to gain better comprehension. Roslan, *et al.* (2022)^[20] conclude that, physical, cognitive and socio emotional factors show a vital part in preschooler's life development, from that, it is important to invest in it to get a better comprehension and have a piece of updated information, especially with the changes in the situation.

Hussain and Begum in the year 2021^[12], conducted a study on growth and development of children to help in planning educational growth and development of the child. Being a human life starts from a single fertilized cell, this cell is under constant interaction with the environment in the mother's womb and after birth with the outside world. This interaction leads to the growth and development of the child relates to increase an organ or limb of the baby, in size and weight is growth. Hussain and Begum (2021)^[12] explain that teacher and parent can manage their children more effectively. Being managing their children, they need to aware of how their children grow and develop in a systematic manner right from the moment of conception.

Lai, *et al.* (2018)^[14] study the literature reviewing on child play relating to the requirement of game in both type of digital and non-digital games. Lai, *et al.* (2018)^[14] define digital games as with the use of computers, mobile devices, or gaming consoles as platforms, while non-digital games may require physical contact or non-digital equipment. The study by Lai *et al.* (2018)^[14] explores the role of non-digital games in child development studies for children aged 4-9. After analyzing 43 papers, the study found that non-digital games can enhance the cognitive development of preschool-aged children, based on factors such as year, age group, type of play, research method, and learning outcome.

Manas (2020)^[15] from VSK University, Ballari studies the

early childhood development in their early stage regarding to the development of physical, cognitive, linguistic, and socio-emotional development from the prenatal stage up to age eight. This development happens in a variety of settings (homes, schools, health facilities, community-based centers); and involves a wide range of activities from childcare to nutrition to parent education. Childhood development occurs in various settings like homes, schools, health facilities, and community-based centers, involving activities like childcare, nutrition, and parent education. Manas (2020) [15] explains that ensuring children develop well, adequate investment in early childhood development is essential. The study found that public spending in 12 US states during the initial stages of life, up to three to five years of age, was significantly lower than investment in later years although brain growth and general child development is most important during the initial stages of life up to three to five years of age (Manas, 2020) [15]. The results align with many other nations where formal education is prioritized from ages five or six forward. Comparing national investments in children from zero to five years with funding for children six to 14 or up to 18 years is instructive.

Darling-Churchill and Lippman (2016) [8] conduct a study to investigate the early childhood's social and emotional development. The field of measurement is being advanced in the area of early childhood social and emotional development. Darling-Churchill and Lippman (2016) [8] construct the relationship of social and emotional development to child functioning and overall well-being. There are multiple purposes of early childhood assessment. Churchill and Lippman (2016) [8] study highlight significant measurement challenges in social and emotional development, which are including unclear conceptualizations and quality and ease of use issues for existing measures. The two researchers provide a comprehensive review of the remaining articles in this issue, emphasizing the need for consensus on effective conceptual and methodological approaches to assess young children's social and emotional development.

Section 4: Presentation of Analysis and Findings

In this study, it is the analysis part. It records the children's abilities and skills before playing, during playing, and after playing. It first examines the gender and age composition. Based on the observed records, it explains how children are transforming the physical and social development before and after the experiment.

Gender and Age Composition of Children

The demographic profile of the respondents is analyzed. It involves analysis of the respondents' gender composition and age of the children under the experiment. Table (1) explains the participants' different age level with regards to gender status of female or male, as follows:

Table 1: Gender of Respondents

Sr. No.	Age \ Gender	Female	Male	Total	%
1	2 yrs to 2 yr and 6 months	6	3	9	18%
2	2 yr and 6 months to 3 yrs	2	3	5	10%
3	3 yrs to 3 yr and 6 months	8	9	17	34%
4	3 yr and 6 months to 4 yrs	5	6	11	22%
5	4 yr to 4 yrs and 6 months	2	2	4	8%
6	4 yrs and 6 months to 5 yrs	2	2	4	8%
	Total	25	25	50	100%

Source: Survey data, 2025

By the Table 1, 6 respondents are female and 3 respondents are male whose age level within 2 yrs to 2 yr and 6 months of age, 2 respondents are female and 3 respondents are male whose age level within 2 yr and 6 months to 3 yrs. Study includes that 8 respondents are female and 9 respondents are male whose age 3 yrs to 3 years and 6 months of age level, 5 Females and 6 Males all together 11 falls in the age range of 3 yr and 6 months to 4 yrs, 2 of females and 2 of males all together 4 are within the age range between 4 to 4 years and 4 months, and 2 of females and 2 of males all together 4 are within the age range 4 yrs and 6 months to 5 yrs. In summary, majority (73.5%) of the total sample children are with the age 3 years and 6 months to 4 years old.

Numbers of Siblings

The number of siblings in a family can significantly impact family well-being, particularly due to the associated expenses. More siblings mean higher expenses for food, clothing, housing, and utilities. The need for larger living spaces to accommodate everyone can increase housing costs. Table (2) shows the numbers of siblings, that the child has in the family.

Table 2: Numbers of siblings (how many brothers and sisters)

Sr. No.	Age \ Gender	Female	Male	Total	%
1	Only one	1	2	3	6.00%
2	One another	8	6	14	28.00%
3	Two another	12	5	17	34.00%
4	Three another	8	5	13	26.00%
5	More than 4 brothers and sister	2	1	3	6.00%
	Total	31	19	50	100.00%

Source: Survey data, 2025

According to Table (2), it shows that there are families who has only one child with 3 families, one another child is with 14 families, two another is with 17 families, three another is with 13 families, and more than 4 are 3 families.

Survey finds that more families are with one to three other siblings in their families.

Types of Childs Playing Toys

Table (3) presents the analysis on the common types of children playing toys that children play in their daily lives.

Table 3: Types of Childs Playing Toys

Sr. No.	Name of the Toys	Total	%
1	Toys from a store or market (Trains, Buses, Trucks, Plastics Screw, building blocks & Screw Drivers)	25	50%
2	Household objects such as bowls, cups, pots	10	20%
3	Writing and drawing materials	8	16%
4	Homemade toys	3	6%
5	Empty Can/Bottle	2	4%
6	Things that Make or play music	2	4%
	Total	50	100%

Source: Survey data, 2025

According to Table (3), it is found that children generally played with Toys from a store or market (Trains, Buses, Trucks, Plastics Screw, building blocks & Screw Drivers) and household objects such as bowls, cups, pots. In an order of their playing with toys, it is found that:

1. Toys from a store or market by 50%
2. Household objects such as bowls, cups, pots by 20%
3. Writing and drawing materials by 16%
4. Homemade toys by 6%

5. Empty Can/Bottle by 4%
6. Things that Make or play music by 4%

Experimental Test for Block Building with respect to Physical and Social Development by the Pre-Observed and Post-Observed Times

During the period from February 2025 to March 2025, the physical and social development through playing was observed. To reveal the children development, their physical and social development were measured pre-observation and post-observation after the experiment with the child playing focusing on Blocks Building Game. Researcher evaluates the child physical and social development status in terms of the 3-Likert response scale for each item (question), where; 0 = No development
1 = Fair development
2 =Yes. Fully development

Comparison of Physical Development Pre-Observed and Post-Observed Times: Physical and Social Development of preschool age children were examined by focusing the child playing on the chosen Block Building child playing game. Children frequent play the Block building games during a month which was started from February 1, 2025 and ended in the March 15, 2025 upon the 50 numbers of chosen children in that Pan Kan Pre-school.

The survey result was described in accordance with the observed times between before and after (pre and post), as in Table 4.

Table 4: Observing Physical Development (Pre and Post)

Name of children	Able to turn around, curve and stretch the body.		Capable of handing over items to others effectively		Can hold toys well with fingers		Can arrange and build the toys.		Can move forward and backward effectively		Can pick up and handle Small objects		Can build towers with more than six wooden blocks.		Can put and store toys into baskets or containers	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Children 1	2	2	1	2	1	2	1	2	1	1	1	1	2	2	1	2
Children 2	2	2	1	2	1	2	1	2	1	1	1	2	1	1	1	2
Children 3	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1
Children 4	1	2	1	2	1	2	1	1	1	2	2	1	1	1	1	1
Children 5	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1	1
Children 6	2	2	1	2	2	2	1	2	1	1	2	2	1	2	1	2
Children 7	1	2	1	2	1	1	1	2	1	1	2	2	2	2	2	1
Children 8	1	2	1	1	1	2	1	2	0	2	1	1	1	1	1	1
Children 9	2	2	1	2	2	2	1	2	1	2	1	2	2	2	2	2
Children 10 to.....50	1	2	1	1	1	1	1	2	2	2	2	2	1	1	2	2

Source: Surrey data, 2025

Detailed observation record is attached in the appendix-2.: To revel the significant of children physical and social changes at the time of pre observation time and post-observation time, statistical analytical measure was conducted.

Table 5: Means and Standard Deviations of Physical Development of Children for Focused Group Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	1.1650	50	.39321	.05561
Physical after Development	1.5575	50	.30221	.04274

Source: Survey data, 2025

The physical growth rate of focused children in Pan Khan preschool revealed much more progress in physical development as can be seen in Table (5). Table shows that there are mean value differences in pre-observed and post-observed on that of the physical manners between the two periods of times.

Measure of the Characteristics of Physical Development by the Descriptive:

Table (6) reveals the correlation between physical development of early childhood through playing the specific game of Blocks Building play. Total eight characteristics relating to pre- and post-physical movements in that Building Blocks Game playing were observed.

Table 6: Paired Sample T-Test on Physical Development Paired Samples Correlations

Physical Development Measures		N	Correlation	Sig.
Pair 1 Able to turn around, curve and stretch the body.	Pre & Post *	50	.345	.014
Pair 2 Capable of handing over items to others effectively	Pre & Post*	50	.350	.013
Pair 3 Can hold toys well with fingers	Pre & Post*	50	.326	.021
Pair 4 Can arrange and build the toys.	Pre & Post	50	.181	.207
Pair 5 Can move forward and backward effectively	Pre & Post*	50	.280	.049
Pair 6 Can pick up and handle small objects	Pre & Post**	50	.720	.000
Pair 7 Can build towers with more than six wooden blocks.	Pre & Post**	50	.622	.000
Pair 8 Can put and store toys into baskets or containers	Pre & Post	50	.230	.108

Note: Post = After observe time (physical), Pre = Before observe time (physical); N= Numbers of pairs (observations) used
 **, * = Significant value at 1% and 5% respectively Source: Survey data, 2025

In a measure of physical development, total eight items which were related to physical development of children in the childhood period. The Paired Samples Correlations table provides details about the strength and significance of the relationship between the two variables in each pair. The correlation value measures the strength and direction of the relationship between before observation (pre-observed) and after observation (post- observed).

Correlation values range from -1 (perfect negative correlation) to +1 (perfect positive correlation). A significance value below 0.10 (e.g., Pair 6, Sig. = 0.000) suggests that the correlation is statistically significant. A significance value above 0.10 (e.g., Pair 4, Sig. = 0.207) suggests that the correlation is not statistically significant.

In a paired t-test, these statistics help determine if the mean differences between the pairs (e.g., A1 vs. B1, A2 vs. B2) are statistically significant. A paired t-test would calculate the mean differences, their standard deviations, and assess whether those differences are likely due to random chance or represent a significant effect. And their difference in growth rate was significant physical development, in this study.

The interpretation of the Physical Development Measures table is as follows

- Pair 1:** Able to turn around, curve and stretch the body. Correlation = 0.345 (moderate positive relationship), Sig. = 0.014 (significant at 0.05 level).
- Pair 2:** Capable of handing over items to others effectively. Correlation = 0.350 (moderate positive relationship), Sig. = 0.013 (significant at 0.05 level).
- Pair 3:** Can hold toys well with fingers. Correlation = 0.326 (moderate positive relationship), Sig. = 0.021 (significant at 0.05 level).
- Pair 4:** Can arrange and build the toys. Correlation = 0.181 (weak positive relationship), Sig. = 0.207 (not significant at 0.05 level).
- Pair 5:** Can move forward and backward effectively. Correlation = 0.280 (moderate positive

relationship), Sig. = 0.049 (significant at 0.05 level).

Pair 6: Can pick up and handle small objects. Correlation = 0.720 (strong positive relationship), Sig. = 0.000 (highly significant at 0.05 level).

Pair 7: Can build towers with more than six wooden blocks. Correlation = 0.622 (strong positive relationship), Sig. = 0.000 (highly significant at 0.05 level).

Pair 8: Can put and store toys into baskets or containers. Correlation = 0.230 (weak positive relationship), Sig. = 0.108 (not significant at 0.05 level).

Pair 6 (pre and post observation) has the highest correlation at 0.720, indicating a strong positive relationship. Pair 4 (A4 & B4) has the lowest correlation at 0.181, suggesting a weak relationship.

In summary, the experimental result on the children physical development is strong and highly significant correlation on Pairs 6 and 7 (e.g., tasks like picking up small objects and building towers, and children can build towers with more than six wooden blocks). There has moderate and significant correlation are observed in Pairs 1,2, and 5 (Able to turn around, curve and stretch the body, capable of handing over items to others effectively, and can move forward and backward effectively).

The growth rate of children in the early childhood period through playing in Pan Kan Preschool revealed much more progress in physical development while playing the Block Building Game as an experimental test as can be seen in Table 1. There were a few weak correlations with the growth rate of physical development in some area (e.g. can arrange and build the toys, and can put and store toys into baskets).

Comparison of Social Development Pre-Observed and Post-Observed Times: Social Development of preschool age children at Pan Kan Pre-school was examined by focusing the specific Block Building child playing Game. The result from observing pre and post social development within the specific group were described in Table 7.

Table 7: Observing Social Development (Pre and Post)

Code of children	Can interacts and communicates freely with peers.		When meeting a friend, he/she greets first.		Well responds when a friend speaks		Listens attentively to others when they speak		Follows the teacher's instructions during playtime.		Can assist in lifting and moving items.		Waits for their turn while playing		Having many friends		Speaks face-to-face with the person communicating		Tends to watch others play but does not join in.	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Children 1	1	2	1	1	0	2	1	2	2	2	1	2	2	2	1	2	1	1	2	2
Children 2	1	2	1	1	1	1	1	1	2	2	1	1	2	2	1	2	1	1	2	2
Children 3	1	1	1	1	0	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1
Children 4	1	1	1	2	1	2	1	2	1	1	1	2	1	1	1	1	1	1	1	1
Children 5	1	1	1	2	1	2	1	2	1	1	1	2	1	1	1	1	1	1	1	1
Children 6	0	2	1	1	0	1	1	1	1	2	2	2	1	1	2	2	2	2	2	2
Children 7	1	2	2	2	0	1	1	2	1	2	2	2	1	1	2	2	2	2	2	2
Children 8	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Children 9	1	1	2	2	1	2	1	2	2	2	2	2	1	1	1	2	1	2	2	2
Children 10 to.....50	1	1	1	1	1	2	1	1	2	2	2	2	1	1	1	2	1	2	2	2

Source: Survey data, 2025

Detail observation record is attached in the appendix-3

Table 8: Means and Standard Deviations of Social Development of Children for Focuses Groups Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Social Before	1.0980	50	.28320	.04005
Development After	1.4240	50	.31659	.04477

Source: Survey data, 2025

According to Table (8), there has significant development in social skills of children in Pan Khan preschool. The mean values pre and post observation revealed much more

progress in social development as can be seen in Table 8. Understanding the present of social development by playing game, the detail analysis was conducted based on ten characteristics relating to social development in playing Building Block Game:

Descriptive Measure of the Characteristics of Social Development: Table (9) reveals the correlation between children’s social development through playing the predetermined Block Building game play. Total ten characteristics relating to pre-and post-social skill in that Building Block Game playing were observed, as follows;

Table 9: Paired Sample T-Test on Social Development Paired Samples Correlations

	Pre & Post	N	Correlation	Sig.
Pair 1 Can interacts and communicates freely with peers.	Pre & Post	50	.042	.774
Pair 2 When meeting a friend, he/she greets first.	Pre & Post**	50	.395	.005
Pair 3 Well responds when a friend speaks	Pre & Post*	50	.397	.004
Pair 4 Listens attentively to others when they speak	Pre & Post**	50	.429	.002
Pair 5 Follows the teacher's instructions during playtime.	Pre & Post**	50	.675	.000
Pair 6 Can assist in lifting and moving items.	Pre & Post*	50	.689	.000
Pair 7 Waits for their turn while playing	Pre & Post**	50	.724	.000
Pair 8 Having many friends	Pre & Post**	50	.504	.000
Pair 9 Speaks face-to-face with the person communicating	Pre & Post**	50	.705	.000
Pair 10 Tends to watch others play but does not join in.	Pre & Post**	50	.700	.000

Note: Post= After observe in social development, Pre = Before observed in social development N= Numbers of pairs (observations) used **, * = Significant value at 1% and 5% respectively Source: Survey data, 2025

According to Table (9), it is the analysis of Paired Sample T-Test on Social Development table for ten characteristics observed in the Building Blocks Game. By the use of Statistical Software Package, the interpretation of the Social Development Measures table is as follows:

- Pair 1:** Can interact and communicate freely with peers. Correlation = 0.042 (very weak relationship), Sig. = 0.774 (not significant).
- Pair 2:** When meeting a friend, he/she greets first. Correlation = 0.395 (moderate positive relationship), Sig. = 0.005 (significant).
- Pair 3:** Well, responds when a friend speaks. Correlation = 0.397 (moderate positive relationship), Sig. = 0.004 (significant).

- Pair 4:** Listens attentively to others when they speak. Correlation = 0.429 (moderate positive relationship), Sig. = 0.002 (significant).
- Pair 5:** Follows the teacher's instructions during playtime. Correlation = 0.675 (strong positive relationship), Sig. = 0.000 (highly significant).
- Pair 6:** Can assist in lifting and moving items. Correlation = 0.689 (strong positive relationship), Sig. = 0.000 (highly significant).
- Pair 7:** Waits for their turn while playing. Correlation = 0.724 (strong positive relationship), Sig. = 0.000 (highly significant).
- Pair 8:** Having many friends. Correlation = 0.504 (moderate positive relationship), Sig. = 0.000

(significant).

Pair 9: Speaks face-to-face with the person communicating. Correlation = 0.705 (strong positive relationship), Sig. = 0.000 (highly significant).

Pair 10: Tends to watch others play but does not join in. Correlation = 0.700 (strong positive relationship), Sig. = 0.000 (highly significant).

Based on the Paired Sample T-Test on Social Development

Strong and highly significant correlations are observed for Pairs 5, 6, 7, 9, and 10 (e.g., activities like following instructions, waiting for turns, and watching others play). Moderate correlations with significance appear in Pairs 2, 3, 4, and 8.

Among all the Pair 1 or the children’s ability to interact and communicate freely within their group members shows a very weak correlation and is not statistically significant. That means interacting and communizing does not show more social development, whereas the other manners could have significant changes in the social status during the childhood period through playing. This data reveals diverse strengths in social development characteristics, with notable progress in structured interactions and cooperation among peers during playtime

Examination of the relationship between Children-play and Physical and Social Development

Table (10) reveals the correlation between child playing and physical and social development through playing the predetermined game type.

Table 10: Means and Standard Deviations of Physical Development of Children

	Paired Samples Test			T	df	Sig. (2-tailed)
	Paired Differences					
	Mean	Std. Deviation	Std. Error Mean			
Physical						
Pair 1 Development (Pre & Post) Social	0.3925	0.28009	0.03961	9.909	49	0.000
Pair 2 Development (Pre & Post)	0.326	0.16389	0.02318	14.065	49	0.000

Source: SPSS Output data, 2025

This paired samples test assesses the differences between two related groups- "Physical - Post vs. Physical – pre time" and "Social - Post vs. Social – Pre time.

For Pair 1, it represents the physical development pre-observed and post- observed times. The interpretation of the table is as follows:

Mean Difference

The average difference is 0.3925, indicating improvement in the "Physical" score after the intervention. t-statistic: 9.909 (a very high value showing strong evidence of change). p-value (Sig. 2-tailed): 0.000, meaning the difference is statistically significant ($p < 0.05$). The 95% Confidence Interval (CI) ranges from 0.3129 to 0.4721, confirming that the difference is consistently positive. Pair 2 presents the social development pre observed and post observed time.

The interpretation of the table is as follows

Mean Difference

The average difference is 0.3260, highlighting improvement in the "Social" score after the intervention. t-statistic: 14.065 (also very strong evidence of change). p-value (Sig. 2-tailed): 0.000, indicating a statistically significant difference. The 95% Confidence Interval (CI) spans from 0.27942 to 0.37258, affirming consistent improvement.

According to Table (10), there have significant correlation between child playing and physical and social development of children in Pan Khan preschool. Both of the mean values of the pre and post observation times revealed significant correlation of both physical and social development as can be seen in the above table.

Both "Physical" and "Social" aspects show significant improvement after the intervention or event (the small p-values < 0.05). Play promotes healthy child development by means of physical and social development.

Section 5: Conclusion and Recommendations

Conclusion and Discussion

In this section, it summarizes the findings of the study of the influence of play on the physical and social development of early childhood. Early childhood development in terms of physical and social development is important because it lays the groundwork for learning and aids cognitive or mental development. During the period from February 2025 to March 2025, the physical and social development through playing was observed. To reveal the children development, their physical and social development were measured pre-observation and post-observation after the experiment with the child playing focusing on Blocks Building Game.

In this study, it involves quantitative research approach. Researcher focused on 25 boys and 25 girls whose ages were from 2 to 5 years’ old who were attending in chosen Pan Khan preschool in Shan State. The majority (73.5%) of the total sample children are with the age 3 years and 6 months to 4 years old. The number of siblings in a family can significantly impact family well-being. In this analysis, it is observed that most of the families are with one to three other siblings in their families. Children are playing with various kinds of toys. During the observation period, it is found that children generally played with Toys from a store or market (Trains, Buses, Trucks, Plastics Screw, building blocks & Screw Drivers) and household objects such as bowls, cups, pots are observed as second prioritized child playing games. Children are using writing and drawing materials, which is observed as third most type of child playing games.

To examine the influence of play on the physical and social development, an observation checklist and structured survey questionnaire questions were developed. Researcher evaluates the child physical and social development status in terms of the 3-Likert response scale for each item

(question), where; 0 = No development, 1 = Fair development, and 2 = Fully development. The findings from the observational checklists for both physical and social development for children is presented as follows:

The first analysis is the experimental test for "Block Building" playing game with respect to physical development. In this test, total eight characteristics relating to physical movements in the times of pre- and post-physical movements were examined. Among these characteristics the physical movement of children can pick up and handle small objects and the physical movement of children can build towers with more than six wooden blocks are found as highly correlated and significant positive effect on the physical development of the children in that early childhood period. Children are able to turn around, curve and stretch the body during the examination period, the capable of handing over items to others effectively, and can hold toys well with fingers, which are also significant physical movement. The correlation value measures the strength and direction of the relationship between before playing building block (pre-observed) and after (post-observed time).

The second check list is the experimental test for "Block Building" playing game with respect to social development. In this test, total ten characteristics relating to social development during the times of pre and post. By the use of statistical analytical tool, it is found that there has significant development in social status of children in Pan Khan preschool. The mean values pre and post observation revealed much more progress in social development.

Based on the Paired Sample T-Test on social development, the study finds out that there has strong and highly significant correlations are observed for the activities like following teachers' instructions, assist in lifting and moving items, waiting for turns, and watching others play. The study also reveals the moderate correlations with significance appear in the manners of meeting a friend, he/she greets first, well responds when a friend speaks, listens attentively to others when they speak and the manner of having many friends. The children's ability to interact and communicate freely within their group members shows a very weak correlation and is not statistically significant. That means interacting and communizing does not show more social development, whereas the other manners could have significant changes in the social status during the childhood period through playing. The study reveals the significant variation in the strengths of social development characteristics, with notable progress in structured interactions and cooperation among peers during playtime.

In the examination of the relationship between children-play and Physical and Social Development, the study finds out correlation between child playing and physical and social development that predetermined game type. By the Paired Sample T-Test analysis result between physical and social changes, the study finds out that there have significant correlation between child playing and physical and social development of children in Pan Khan preschool. During the observation periods, both of the mean values revealed significant correlation between building block game playing and physical and social development. Since both "Physical" and "Social" aspects show significant improvement after the intervention or event (the small p-values <0.05), the

research reveals that play has a significant impact on both the physical and social development of children.

In conclusion, the paired correlation analysis test results reveals that there are significant correlations in physical and social skills between two periods: pre observation and post observation times. Study can be concluded that there has significant relationship of children playing and Physical and Social Development of Early Childhood in Pan Kan Pre-School, Hsihseng Township, Shan State.

Recommendations

By the survey findings in the above, the descriptive statistics reveals that there has mean differences between pre and post observation times responding to the physical and social characteristics. Based on that, it could be recommended in some area. It could be recommended to the school to maintain play yard to be safe and spacious enough for physical activities so as to contribute to the physical and social development of the children. There could be accommodating a variety of play equipment and activities. As the advancement of technology, it could be suggested that the school should have more use of modern play equipment offering diverse structures for various physical activities, fostering children's motor skills. It is also recommended to the school to maintain play yard, and to maintain parents believe feel safe by reducing risk and injuries. Well physical place could have physical health, mental health, cognitive development, and social skills.

Together with the recommendations, the following suggestions could be made. It could be suggested that the school administrators to continue to carefully design and use of the educational space so that parents and local communities would have more involvement for supporting children's holistic development, promoting social and emotional thriving. School should plan regular activities such as story time and art projects. It is recommended that a clean and safe restroom for children, comfortable children' sleeping area, quiet areas for children to relax, variety of toys and educational materials, adequate indoor recreational spaces and the safe outdoor play area, which all are important facilities that effect on positive views of parents eventually leads to physical and social development of early childhood through playing in Pan Kan Pre- School.

By the observations between two different times, it was found out that children playing and physical and social development are strongly and significantly correlated factors. This finding contributes to the previous studies undertaken by the Ali, *et al.*, (2018) [2]; Brinda (2020) [6]; Churchill & Lippman (2016) [8]'s studies. It is strongly recommended that school administrators of this Pan Kan Pre- School should emphasize on children playing facilities of safe playing yard, emergency aids, teaching aids, hall seminar room, painting room, childcare, toys, and other kid facilities to have more improvement on physical and social development of early childhood period.

Limitation and Future Research

This study only highlighted on physical and social development of early childhood through playing in Pan Kan Pre- School, in Shan State. There are many other preschools in the Shan state, as well as all around in Myanmar. For that, further studies are necessary to extend to many

involvements of children from many cities of Myanmar. The study only focused on the specific playing game name “building blocks” and child’s physical and social characteristics pre observe and post observe status. There are many other influencing factors. For that, further studies are necessary to extend to these other playing games and other influential factors for the physical and social development of early childhood through playing.

Acknowledgements

I hereby express my heartfelt gratitude to

- My research supervisor, Dr. Aye Aye Myint, for her unwavering support and guidance throughout the duration of this research module. Her boundless knowledge and availability for support at all times have been invaluable.
- Sincere appreciation to all my lecturers for their teachings and wisdom over this journey. Their insights have not only prepared me for this project but have also equipped me with future-ready skills.
- Thankful acknowledgment to the participating schools for their permission to conduct research and for their staff’s participation in this study.
- My dear friends, who supported me emotionally and physically, through this project timeline.
- All administrators, teachers, and students who committed themselves in answering the questionnaire and interviews.
- Last but not least, a special thank you to the Institut Brittany d’Enseignement Supérieur (IBES) and Myanmar Business and Social Development Institute (MBSD), Myanmar, for providing a wonderful opportunity in international education.

References

1. Ahmad F. Difference between research method and research methodology; c2022 Dec 2 [cited 2024]. Available from: <https://keydifferences.com>
2. Ali E, Constantino KM, Hussain A, Akhtar Z. The effects of play-based learning on early childhood education and development. *Journal of Evolution of Medical and Dental Sciences*. 2018;7:6808–6813.
3. Ariani K, Marleni M. The effectiveness of using teaching aids on student learning outcomes in increasing interaction in learning. *Esteem: Journal of English Education Study*. 2023;6(2):346–355.
4. Barrett P, Treves A, Shmis T, Ambasz D, Ustinova M. The impact of school infrastructure on learning. Washington (DC): International Bank for Reconstruction and Development / The World Bank; c2019.
5. Bourne J. Early childhood education has a new massive open online course (MOOC) [Internet]. 2018 Oct 10 [cited 2024]. Available from: <https://www.globalpartnership.org>
6. Brinda AR. Impacts play has on the social, emotional, and academic development of children [master’s thesis]. Bethel University; c2020.
7. Cohen L, Manion L, Morrison K. *Research methods in education*. 6th ed. London: Routledge Taylor & Francis Group; c2007.
8. Darling-Churchill KE, Lippman L. Early childhood social and emotional development: advancing the field of measurement. *Journal of Applied Developmental Psychology*. 2016;45:1–7.
9. Dina. The importance of play – social development in children [Internet]. 2024 Jan 22 [cited 2024]. Available from: <https://drdina.ca>
10. Ferreira M, Reis-Jorge J, Batalha S. Social and emotional learning in preschool education: a qualitative study with preschool teachers. *International Journal of Emotional Education*. 2021;13(1):51–66.
11. Global New Light of Myanmar. Education and schooling [Internet]. 2021 Jun 6 [cited 2024]. Available from: <https://www.gnlm.com.mm>
12. Hussain A, Begum F. Growth and development of children. *SSRN Electronic Journal*. 2021.
13. Khatimah H. Major impact of classroom environment in students’ learning. *Journal of Education Review Provision*. 2021;1(1):12–17.
14. Lai NK, Ang TF, Por LY, Liew CS. The impact of play on child development: a literature review. *European Early Childhood Education Research Journal*. 2018;26(4):1–19.
15. Manas GM. A study on childhood development in early stage [Internet]. 2020 Oct [cited 2024]. Available from: <https://www.researchgate.net>
16. Martinez C. Benefits of play for the social and emotional development of children in kindergarten. *Capstone Projects and Master’s Theses*. 2019;498.
17. Milteer RM, Ginsburg KR. The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics*. 2012;129(1):204–213.
18. Murphy R. 10 ways being a kid has changed in the past 20 years [Internet]. 2019 Sep 19 [cited 2024]. Available from: <https://www.businessinsider.com>
19. Opstoel K, Chapelle L, Prins FJ, De Meester A, Van der Martelaer K, Haerens L, *et al*. Personal and social development in physical education and sports: a review study. *European Physical Education Review*. 2020;26(4):797–813.
20. Roslan F, Selvam L, Pandian T, Rahman MN. A systematic review on physical, cognitive, and social-emotional development of pre-schoolers. *International Journal of Academic Research in Progressive Education and Development*. 2022;11(2).
21. San NM, Myint AA, Oo CZ. Using play to improve the social and emotional development of preschool children. *Southeast Asia Early Childhood Journal*. 2021;10(2):16–35.
22. Stenning E. Basic education in Myanmar. In: Symaco LP, Hayden M, editors. *International handbook on education in Southeast Asia*. Cham: Springer; c2024. p. 709–729.
23. Tan M, Dobbs-Oates J. Relationship between emergent literacy and early social-emotional development in preschool children from low-income backgrounds. *Early Child Development and Care*. 2013;183(11):1509–1530.
24. Tyler S. Physical development in early childhood [Internet]. 2020 [cited 2024]. Available from: <https://uark.pressbooks.pub>
25. UNESCO. Digital learning and transformation of

- education [Internet]. 2023 [cited 2024]. Available from: <https://www.unesco.org>
26. UNESCO. What you need to know about early childhood care and education [Internet]. 2023 May 11 [cited 2024]. Available from: <https://www.unesco.org>
 27. UNICEF. Early childhood education: every child deserves access to quality early childhood education [Internet]. 2024 Sep 12 [cited 2024]. Available from: <https://www.unicef.org>
 28. Whitebread D, Neale D, Jensen H, Liu C. The role of play in children's development: a review of the evidence [Internet]. 2017 Nov [cited 2024]. Available from: <https://www.researchgate.net>
 29. Wikipedia contributors. Shan State [Internet]. 2024 Oct 22 [cited 2024]. Available from: https://en.wikipedia.org/wiki/Shan_State
 30. Manuilenko ZV. The development of voluntary behavior in preschool-age children. *Soviet Psychology*. 1975;13(4):65-116.

Creative Commons (CC) License

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY 4.0) license. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.