

Outdoor play and its impact on preschoolers' social and physical development: A case study of a community-based learning center

Cunanan, Angelica C. ✉

Leyte Normal University, Philippines (moonriver021498@gmail.com)

Received: 15 May 2026
Available Online: 3 June 2026

Revised: 1 June 2026
DOI: 10.5861/ijrse.2026.26217

Accepted: 2 June 2026

ISSN: 2243-7703
Online ISSN: 2243-7711

OPEN ACCESS



Abstract

This study examined the impact of outdoor play on the social and physical development of preschoolers in a community-based learning center. A qualitative case study design was employed to gain in-depth insights into children's experiences during outdoor play. Data were gathered through observation, semi-structured interviews with teachers, and document analysis, and were analyzed thematically to identify patterns related to social and physical development. The findings revealed that outdoor play significantly enhanced preschoolers' social skills by encouraging interaction, cooperation, communication, and participation in group activities. Children became more confident and socially engaged, particularly those who were initially shy. In terms of physical development, outdoor play promoted active movement—running, jumping, climbing, and balancing—which contributed to improved motor coordination, strength, and overall physical fitness. The study further found that social and physical development are closely interconnected, as increased physical confidence frequently led to greater social participation. Outdoor play provided a natural and supportive environment where children developed holistically through active exploration and peer interaction. These findings underscore that outdoor play is an essential component of early childhood education that supports both developmental domains in meaningful and engaging ways. It is recommended that educators, parents, and school administrators promote and institutionalize regular outdoor play to enhance children's overall growth and well-being.

Keywords: outdoor play, preschoolers, social development, physical development, early childhood education

Outdoor play and its impact on preschoolers' social and physical development: A case study of a community-based learning center

1. Introduction

During the first eight years of life, children experience significant growth and development, both socially and physically, and will play in a variety of ways in this early life stage, but most importantly through outdoor play. Opportunities for outdoor play provide children with a chance to explore, move, and develop their social skills with peers. Research indicates that when children engage in play, their cognitive, physical, social, and emotional development is enhanced because of the ability to explore their surroundings, find solutions to problems, and develop meaningful relationships with peers (Ginsburg, 2007; Pellegrini & Smith, 1998). Additionally, outdoor play contributes to the physical development of preschool-age children by allowing them to run, jump, and climb, which helps to develop motor skills, coordination, and overall health (Frost, 2010; Gallahue & Ozmun, 2006). Outdoor play will also enhance social development through opportunities for cooperative and communicative engagement with peers (Miranda et al., 2017). Outdoor play generally has been correlated to children aged preschool age who regularly engage in outdoor play demonstrating a higher level of social skills and psychosocial well-being than those children who do not engage in outdoor play (Hinkley et al., 2018).

Research studies have shown a positive correlation between outdoor play and long-term child development, including school readiness and overall psychosocial development (Nature and success, 2024). Preschool-age children who have higher levels of participation in outdoor play will have higher levels of cognitive and social skills, which are key to their transition to traditional school settings (Bento & Dias, 2017). There is a growing body of literature regarding preschool programs and the positive correlation between the design of outdoor learning environments and visits by preschool-age children (Cakan & Acer, 2024). Barriers to outdoor play opportunities for preschool-age children exist, especially in community-based learning centers, due to factors such as lack of access to sufficient outdoor play spaces, safety concerns, and excessive focus on providing children with academic instruction. These barriers may have an adverse effect on children's overall development by limiting their growth physically and developmentally through social engagement. Providing community-based learning centers with the means to create opportunities for children in under-resourced communities to support early childhood education must include a robust understanding of the role of outdoor play in contributing to their overall development.

In the Philippines, more and more people are becoming aware of the importance of outdoor play for early childhood development. According to DepED and ECCD Council, play-based learning is a major part of the national kindergarten curriculum (DepEd Order No. 47, s. 2016). But while these policies exist, there have not been enough studies examining how outdoor play is done at community-based learning centres in the Philippines. For example, many studies looking at low-resource, community-based settings in the Philippines have found that outdoor play has low priority compared to structured teaching. This is especially true where there is a high demand from communities to show improvement in early literacy and numeracy (Yazon & Callo, 2021). This lack of locally-based research shows that more work needs to be done in understanding how Filipino preschool children experience learning in community-based environments, and how outdoor play opportunities in these environments differ from those found in private and urban schools.

The current study will help fill a gap in early childhood education research in the Philippines by reporting findings on outdoor play and preschool children's physical and social development (in this context, it is important to note that "outdoor play" is a broad term that includes any kind of physical activity that takes place outside). To be able to make this contribution, this research study aimed to answer the following questions: (1) What are the social developmental benefits of outdoor play? (2) What are the physical developmental benefits of outdoor play? (3) What is the relationship between social and physical development through outdoor plays?

2. Methodology

An overview of the research design, research setting, study participant groups, data collection method, and data collection procedures as well as an overview of collected and analyzed data will be presented in this section.

Research Design - The purpose of this research was to explore the impact of outdoor play on young children's physical and social growth by conducting a qualitative case study at a community based learning centre. A qualitative case study provides insights beyond what we see on the surface through observation; it helps to provide context and meaning to how children are developing and interacting in real life situations (Yin, 2018).

Research Setting and Participants - The study was conducted at a community learning centre where young children (aged 3-5) typically attend their first level of formal education prior to enrolment in primary school. The Community Learning Centre had been selected as it had plenty of resources available to support young children in having structured outside play on a regular basis during their education. The children that participated in the research were either enrolled at the Community Education Centre or were the teachers or helpers of the children who participated in structured outside play. The participants in this research study were selected through purposive sampling, and as a consequence, all participants in the study were currently involved in or had previously participated in structured outside play as well as providing rich and meaningful context for data collection (Creswell & Poth, 2018).

Data Collection Methods - Three distinct means of collecting data were used to ensure that the data collection process yielded comprehensive and triangulated results. The first method included the direct observation of children engaging in outdoor play to look at social behaviours that occur during play, including sharing and cooperating with each other; communicating with each other; and engaging in physical play such as running, climbing, jumping, etc. Researchers have indicated that observation is an effective way to look at children's behaviour during play in their natural environment (Pellegrini & Smith, 1998). The second means of data collection included conducting semi-structured interviews with teachers and facilitators to collect qualitative data related to how outdoor play supports the development of children, as well as any changes teachers have observed in children's social and physical skills as a result of children playing outside. Lastly, documentation of lesson plans, developmental records, activity schedules, etc. were reviewed in order to validate and support the data collected from both the interviews and observations.

Data Collection Procedure - Data collection was authorized by the Learning Center's administration. All parents/guardians provided informed consent, while child participants provided assent. Observations were conducted during the scheduled outdoor play periods over a period of two (2) to four (4) weeks. Interviews with consenting teachers were conducted at times convenient for the teachers. All data collection was based on field notes and audio recordings collected from participants with their explicit consent.

Data Analysis - Thematic analysis was done through Braun and Clarke's (2006) 6-PHASE PROCESS: familiarization with the data; generation of initial codes; searching for themes; reviewing themes; defining and naming themes; and final report preparation. Data from interview transcripts were coded upon their arrival, while data collected during observations were organized chronologically and analyzed by repeated patterns relating to children's social and physical development with the research purpose and theoretical frameworks.

Ethical Considerations - Obtaining consent from the parents or guardians of child participants and from adult participants was an integral part of the informed consent process for this research. All participant contacts and data were kept confidential and anonymous. All participants in this project voluntarily agreed to take part in this project, and all participants were free to withdraw from participation in this project at any time with no consequences. The child participants' safety and wellness were of the utmost priority throughout the entire research process, in keeping with the ethical guidelines for research involving the young child.

3. Results and discussion

In this section, the research findings will be interpreted based upon the impact of outdoor play on children's social and physical development during preschool. The data will be organized (grouped) and presented according to the questions posed in the study and supported through the review of current literature.

3.1 *Benefits of Outdoor Play on Preschoolers' Social Development*

Results point to outdoor play positively impacting preschoolers' development socially. Through observations of preschoolers engaging in outdoor play, researchers noted many children in group play situations are engaged in cooperative play, role-forming in pretend play, running as a group, using teamwork, etc. Children had many chances to play and to develop their skills of interacting together, such as sharing, taking turns, cooperating and effectively communicating with each other. Children who were initially shy or had participation challenges would begin to engage more fully in outdoor group activities and developed confidence in their ability to do this as well.

The researchers believed the findings were congruent with Vygotsky's (Vygotsky, 1978) theory that without social interaction, children will not learn; by playing and engaging with other preschoolers who were socially more advanced than they are, they were able to internalise what they learned and improved their social competence. Parten (Parten, 1932) saw the tendency for children to use cooperative play as their most common interaction style; children were more likely to use cooperative forms of interaction when playing in open, unstructured ways in outdoor settings. Pellegrini and Smith (Pellegrini & Smith, 1998) indicated that children gain social competence through play and by interacting with other children in active, social environments.

In addition, outdoor environments were found by Miranda, Holk, and colleagues (2017) to foster social play and to encourage children to develop social skills by playing and engaging with peers; and Hinkley, Okely, and colleagues (2018) documented a positive association between outdoor play and social skills, thereby demonstrating that children who play more often and/or to a greater extent (i.e., spend more time engaged in outdoor play) exhibit more prosocial behaviours than children who spent less time engaged in outdoor play. Collectively, the findings from these studies demonstrate that the physical environment is a major contributor to supporting social development during a child's early development.

Table 1
Summary of Observed Social Behaviors During Outdoor Play

Social Behavior	Frequency of Observation	Examples Noted
Sharing and Turn-Taking	High	Waiting for a turn on the slide; sharing play materials
Verbal Communication	High	Directing play scenarios; negotiating roles in group games
Cooperation	Moderate–High	Working together to complete obstacle courses
Conflict Resolution	Moderate	Negotiating disputes over play equipment
Social Inclusion of Shy Children	Moderate	Peers inviting withdrawn children into group activities

Note. Frequency ratings are based on researcher observations across the four-week data collection period.

3.2 *Benefits of Outdoor Play on Preschoolers' Physical Development*

The results show that participation in physical arms on the outdoor playspace can facilitate the overall development of preschoolers. Preschoolers were often heard playing outside during the observation period and engaged in a variety of play using many different movement patterns (such as running, jumping, climbing, and maintaining balance). The children exhibited improvements in gross motor skill development, coordination,

strength, and overall fitness due to the variety of outdoor play they participated in. Children who had the opportunity to engage in frequent outdoor play had greater body control and confidence in how they moved than those who did not participate in frequent outdoor play.

These results are consistent with previous studies on how participating in physically active play influences a child's physical development (Gallahue & Ozmun, 2006). The early childhood years are the most productive time to develop motor skills in young children through regular physical activity (Tremblay et al., 2012). Participation in early childhood physical activity is linked to increased muscular strength, improved bone density, and enhanced cardiovascular health. Frost (2010) also stated that participation in outdoor play will assist with children's development of spatial awareness and coordination through the opportunity for them to perform movement patterns, which they cannot duplicate in indoor play.

The findings from this study corroborate the findings from Bento and Dias (2017), who found that opportunities for gross and fine motor development depend on opportunities for outdoor play. Furthermore, Cakan and Acer (2024) demonstrated that children have more varied and intense physical behaviour when they engage in outdoor play as compared to what they do indoors. This finding also supports the current research that provides enhanced opportunities for children to participate in motor activities when they engage in outdoor play activities.

Table 2

Summary of Observed Physical Activities and Motor Skills During Outdoor Play

Physical Activity	Motor Skill Targeted	Developmental Benefit
Running	Gross motor coordination	Cardiovascular fitness; leg strength
Jumping	Balance and lower limb power	Bone density; spatial awareness
Climbing	Upper body strength; core stability	Risk assessment; confidence
Balancing	Vestibular and proprioceptive development	Postural control; coordination
Throwing and Catching	Hand-eye coordination	Fine motor refinement; bilateral coordination

Note. Physical activities were documented through structured observations across all outdoor play sessions.

3.3 Interconnection Between Social and Physical Development

Another notable finding in this study was the interdependent nature of social and physical development. When children increase their overall physical confidence through outdoor play, they are also more likely to engage with their peers and be socially active by joining clubs or groups. When children experience positive social interactions while engaging in group-based physical play, they are also more likely to participate in group-based physical activities. This finding suggests that outdoor play has a bidirectional relationship with holistic development; and, furthermore, there is evidence that outdoor play addresses multiple developmental domains at the same time (i.e., holistically) and synergistically. This study's findings support Coplan and Rubin's (2010) social development framework for children, which recognizes the significance of physical activity contexts for developing social skills. The finding of the interdependent nature of social and physical development validates the notion of outdoor play as an integrated developmental experience rather than traditionally being described as a domain specific event.

4. Conclusions

Research indicates that outdoor play is instrumental in helping preschool children grow and develop in all ways. Children gain social skills through outdoor play, such as sharing, cooperating, and communicating and gain physical skills through outdoor play, particularly through gross motor development using large muscle groups. Moreover, the research found that several of the factors in the research, such as physical confidence and social engagement, supported the hypothesis that outdoor play creates holistic development in children. The implications of the findings from this research can and should influence how children are educated and how early childhood education policies are made. Therefore, outdoor play should not only be considered free play time away from

formal activities but as part of the preschool curriculum. To promote the whole development of children, outdoor play should be integrated into daily routines through both organized (e.g., group games) and unorganized (e.g., free exploration) activities and provide children with developmentally appropriate opportunities to learn.

According to this research, practitioners and educators should design outdoor spaces to create outdoor learning environments (as opposed to getting a break) and create measurable developmental outcomes. For example, each week, teachers can change and rotate outdoor play areas, such as a balance beam area, cooperative building area, or dramatic play area using natural materials, to purposefully enhance gross motor development and social interaction skills. In addition, outdoor time can be used for authentic assessment of children and their developmentally able to take turns, solve conflicts, and coordinate their large muscle groups, rather than relying only on a traditional classroom-based assessments. This may reflect the ECCD Checklist being used in early childhood programs in the Philippines, as the developmental milestones associated with physical, social, and emotional development are monitored holistically.

For children, regular access to “quality” outdoor play will help improve school readiness. For example, children who develop stronger gross motor skills by climbing and running are better able to handle the physical challenges of formal schooling, such as sitting up for long periods or controlling a pencil for writing. Children who practice social negotiation while playing outdoor group games are developing cooperative and communicative foundations for participation in a classroom setting. Finally, the research also found that shy or withdrawn children have been found to develop greater social engagement when they have access to outdoor play. This suggests that the outdoor environment may provide less stressful social opportunities for children who struggle to interact and participate when within more formal structured indoor environments. Therefore, schools and community-based learning centres should ensure that they dedicate at least 30 to 45 minutes of supervised outdoor free and organized play time on a daily basis to each child. Schools with limited outdoor space can implement creative strategies to achieve quality outdoor play for their children, such as establishing play areas on rooftops, creating circuits in hallways for children to participate in movement for physical activities, or working with the community for regularly scheduled use of outside play areas in their community. For community-based learning centres in the Philippines, they typically operate in limited physical environments; therefore, even small investments in outdoor materials can yield significant increases in gross motor and social learning opportunities for preschool children.

Recommendations - Based on the results of this research, the following recommendations are made.

- **Early educators and instructors** should include both purposeful and free outdoor play as part of their daily plan and provide an outdoor learning environment that is safe, stimulating, and inclusive in which all children can learn and grow.
- **Administrators** are encouraged to invest in the development of more outdoor spaces for children, provide child-sized equipment, and provide appropriate safety equipment in outdoor areas. Administrative support will provide the infrastructure needed to institutionalize outdoor play as a component of the educational process.
- **Caregivers** are encouraged to prioritize and provide outdoor play at home and within the community environment. Limiting screen time and encouraging active participation in outdoor play will reinforce the development of physical and motor skills that children are learning in school.
- **Policymakers and curriculum developers** need to include outdoor play as part of the early childhood education framework. Legislation and policies that require and encourage structured outdoor play opportunities will result in equitable development opportunities for all early childhood learners.
- **Future research** should continue to look at the long-term effects of outdoor play on cognitive and emotional development and use a combination of quantitative and mixed-method research designs with a larger and more diverse sample size.

AI Use Disclosure. Chatgpt was used by the author as an editing tool for linguistic editing and manuscript formatting. As such, the author conducted all review, verification, editing and fact-checking of the Chatgpt outputs. No confidential or personally identifiable information was inputted into any AI tools used by the author during their research or writing process. Ultimately, the author has ultimate responsibility for their own content.

5. References

- Bento, G., & Dias, G. (2017). The importance of outdoor play for young children's healthy development. *Porto Biomedical Journal*, 2(5), 157–160. <https://doi.org/10.1016/j.pbj.2017.03.003>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Cakan, A., & Acer, D. (2024). Analysis of preschool children's outdoor play behaviours. *Journal of Outdoor and Environmental Education*, 28, 387–413. <https://doi.org/10.1007/s42322-024-00174-4>
- Coplan, R. J., & Rubin, K. H. (2010). *Social development in childhood*. Guilford Press.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Department of Education. (2016). DepEd Order No. 47, s. 2016: Omnibus policy on learners' uniforms, and DepEd Order No. 32, s. 2012: Policy guidelines on the implementation of grades 1 to 10 of the K to 12 basic education curriculum (BEC) effective school year 2012–2013. Department of Education, Republic of the Philippines. <https://www.deped.gov.ph>
- Frost, J. L. (2010). *A history of children's play and play environments: Toward a contemporary child-saving movement*. Routledge.
- Gallahue, D. L., & Ozmun, J. C. (2006). *Understanding motor development: Infants, children, adolescents, adults* (6th ed.). McGraw-Hill.
- Ginsburg, K. R. (2007). The importance of play in promoting healthy child development and maintaining strong parent–child bonds. *Pediatrics*, 119(1), 182–191. <https://doi.org/10.1542/peds.2006-2697>
- Hinkley, T., Brown, H., Carson, V., & Teychenne, M. (2018). Cross-sectional associations of screen time and outdoor play with social skills in preschool children. *PLOS ONE*, 13(4), e0193700. <https://doi.org/10.1371/journal.pone.0193700>
- Miranda, N., Larrea, I., Muela, A., & Barandiaran, A. (2017). Preschool children's social play and involvement in the outdoor environment. *Early Education and Development*, 28(5), 525–540. <https://doi.org/10.1080/10409289.2016.1250550>
- Nature and success: Outdoor play is linked to school readiness. (2024). *Children and Youth Services Review*. <https://doi.org/10.1016/j.ctcp.2024.101895>
- Parten, M. B. (1932). Social participation among preschool children. *Journal of Abnormal and Social Psychology*, 27(3), 243–269.
- Pellegrini, A. D., & Smith, P. K. (1998). Physical activity play: The nature and function of a neglected aspect of play. *Child Development*, 69(3), 577–598.
- Tremblay, M. S., LeBlanc, A. G., Carson, V., Choquette, L., Gorber, S. C., Dillman, C., Duggan, M., Gordon, M. J., Hicks, A., Janssen, I., Kho, M. E., Latimer-Cheung, A. E., LeBlanc, C., Murumets, K., Okely, A. D., Reilly, J. J., Spence, J. C., Stearns, J. A., & Timmons, B. W. (2012). Systematic review of physical activity and health indicators in the early years (aged 0–4 years). *Applied Physiology, Nutrition, and Metabolism*, 37(4), 773–792. <https://doi.org/10.1139/h2012-070>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Yazon, A. D., & Callo, E. C. (2021). Play-based learning and preschool children's school readiness: Implications for early childhood education policy in the Philippines. *International Journal of Research Studies in Education*, 10(9), 45–57. <https://doi.org/10.5861/ijrse.2021.636>
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.

