A Qualitative Study of Teachers' Perceptions of Children's Physical Activity and Learning in Preschool

Waode Eti Hardiyanti
Department of Early Childhood Education, Universitas Negeri Gorontalo, Indonesia
Email: waode@ung.ac.id
Muhammad Ilham
Fakultas Tarbiyah dan Ilmu Keguruan, Institut Agama Islam Negeri Kendari, Indonesia
Email: iilankelo@gmail.com

Abstract

The aimed of this research is to examine teachers' perception of physical activity that can indicate the level of physical activities displayed in children's classroom. Semi-formal interviews were conducted with six early childhood teachers. Results of the study indicated that early childhood teachers used physical activity to promote the learning materials. The teachers stated that through their physical activities, children might develop a better comprehension of academic concepts. The teachers also reported that children's positive attitudes improved when physical activity was undertaken, particularly evidenced by an increase in children's confidence and enthusiasm during the learning process. However, inadequate opportunity to include physical activity in preschool due to limited equipment, deterred teachers from truly facilitating the physical activities of children. The teachers were also concerned that their ability and understanding to accommodate physical activity may not be adequate for the children. Therefore, underpinning the teacher's role with training may be required in order to cover the children's needs to actively engage in physical activities as mentioned in curriculum.

Keywords: children development; physical activity; preschool; teachers' perceptions

Abstrak

Tujuan penelitian ini adalah untuk mengetahui persepsi guru tentang aktivitas fisik anak dapat dapat menunjukkan tingkat kegiatan motorik yang dilakukan di dalam kelas. Wawancara semi-formal dilaukan dengan mengundang enak guru PAUD. Hasil penelitian menunjukkan bahwa guru PAUD menggunakan aktivitas fisik motorik untuk mempromosikan materi pembelajaran. Para guru menyatakan bahwa melalui kegiatan fisik, anak dapat mengembangkan pemahaman konsep akademik yang lebih baik. Guru-guru juga menyatakan bahwa sikap positif anak meningkat ketika aktivitas fisik dilakukan, utamnya dibuktikan dengan peningkatan kepercayaan diri dan antusiame anak selama proses pembelajaran. Namun, kesempatan untuk merencankan dan melaksankan kegiatan motorik di sekolah PAUD terkendala dengan peralatana yang terbatas, sehingga menghalangi keinginan guru untuk benar-benar memfasilitasi kegiatan fisik motorik anak. Para guru juga mengkhawatirkan bahwa kemampuan dan pemahaman mereka mengenai kegiatan fisik anak kurang untuk mengakomodasi seluruh aktivitas mereka. Oleh karena itu, mendukung peran guru dengan pelatihan sangat diperlukan untuk memenuhi kebutuhan seluruh anak sehingga dapat terlibat aktif dalam kegiatan fisik motorik seperti yang diamanahkan dalam kurikulum.

Kata kunci: perkembangan anak; aktivitas fisik; PAUD; persepsi guru

A. Introduction

In early childhood, children experience many kinds of development. Commonly, cognitive development is a major focus of attention in preschool[1]. The importance of academic skill in preschool has been explored in many types of research[2, 3], which the main areas of interest in early childhood research has been math, language and literacy. In typical classroom learning, children sit and listen to their teachers which leads to a tendency to become passive learners and understand learning as a passive activity[4]. Furthermore, research about development of physical activities in learning is rarely seen in preschool. This leads to limited information for stakeholders in education who may ignore movement development in preschool. As a result, children might experience limited opportunity for movement in preschool. Hence, addressing the implementation of movement development through active learning in preschool can provide beneficial insight for today's educators.

The nature of children is to be physically active and curious to discover things around them[5]. Through physical activities children can have opportunity to actively engage with their environment. As a result, physical activity can lead children to obtain benefits in term of enhancing academic performance, social and emotional development[6]. Movement experiences can help children to understand academic concepts due to the opportunity to imitate object around them. For instance, children can use their fingers to designate a number or shape of a letter. Additionally, physical experiences may improve children's social and emotional development[7]. Children who engage in movement activity will find it easy to interact with peers especially when they move during unstructured play[8]. They also gain self-confidence if they have finished a task which included kinaesthetic activity in learning. Therefore, the role and application of movement activities in preschool should be considered important to achieve all-around development.

In order to enhance children's movement activity in early childhood education (ECE), teachers need to be the ones who are modeling appropriate activity and encouraging activity through instruction[9]. Teachers provide valuable sources of information on the level of physical activity applied in the classroom, time spent on outdoor playtime and how movement can influence the learning process. For example, children who imitate animal movement may have a greater understanding about part of the body in an animal. Teachers' views also may influence the quality of movement which affects how movement is applied in

---

[1] J. S. Gehris, R. A. Gooze, and R. C. Whitaker, "Teachers' Perceptions about Children's Movement and Learning in Early Childhood Education Programmes," *Child: Care, Health and Development* 41, no. 1 (2015): 122–31, https://doi.org/10.1111/cch.12136.

[2] Bruce Fuller et al., "Do Academic Preschools Yield Stronger Benefits? Cognitive Emphasis, Dosage, and Early Learning," *Journal of Applied Developmental Psychology* 52, no. October 2016 (2017): 1–11, https://doi.org/10.1016/j.appdev.2017.05.001..

[3] Eeva Hujala, "The Development of Early Childhood Education as an Academic Discipline in Finland," *Tidsskrift for Nordisk Barnehageforskning* 1, no. 1 (2008): 17–23, https://doi.org/10.7577/nbf.238.

[4] Linda M. Gagen and Nancy Getchell, "Using 'constraints' to Design Developmentally Appropriate Movement Activities for Early Childhood Education," *Early Childhood Education Journal* 34, no. 3 (2006): 227–32, https://doi.org/10.1007/s10643-006-0135-6.

[5] Serap Sevimli-Celik, Sadettin Kirazci, and Mustafa Levent Ince, "Preschool Movement Education in Turkey: Perceptions of Preschool Administrators and Parents," *Early Childhood Education Journal* 39, no. 5 (2011): 323–33, https://doi.org/10.1007/s10643-011-0473-x.

[6] John J. Reilly, "Low Levels of Objectively Measured Physical Activity in Preschoolers in Child Care," *Medicine and Science in Sports and Exercise* 42, no. 3 (2010): 502–7, https://doi.org/10.1249/MSS.0b013e3181cea100. 7

[7] Gehris, Gooze, and Whitaker, *loc. cit.*

[8] S. W. Logan et al., "Getting the Fundamentals of Movement: A Meta-Analysis of the Effectiveness of Motor Skill Interventions in Children," *Child: Care, Health and Development* 38, no. 3 (2012): 305–15, https://doi.org/10.1111/j.1365-2214.2011.01307.x.

[9] Gehris, Gooze, and Whitaker, *op. cit.*

learning[10]. Indeed, children can perform better if they feel supported and have a role model by adults or teachers. In addition, the information of movement activity in school can be gathered through curriculum that is specifically shown in lesson plan created by teachers. In this lesson plan, detailed information related to types and time allocation for movement activity is shown. It reflects how far teachers' belief and knowledge about movement have been translated into movement activities in learning[11]. Therefore, exploring teachers' perceptions of movement learning provide a better understanding of movement and its benefits in learning.

Movement activities involvement can be defined into three categories: "locomotor (e.g. walking, running, jumping), non-locomotor (turning and twisting) and manipulative (throwing, catching, dribbling)"[12]. These physical activities are commonly applied to children's activities in preschool. These fundamental skills should be mastered before moving to complex movement. Meanwhile, the National Association for Sport and Physical Education as cited from Cashmore and Jones[13], explains that physical activity should consist of certain hours of structured and unstructured activity that depends on type of preschool (long daycare, playgroup, or kindergarten), developing simple to complex movement skill and having access to outdoor and indoor activities. Examining these physical activities in the context of preschool activities from teachers' perceptions may be essential insights.

The Indonesian curriculum of early childhood education also known as Kurikulum 2013 directly states that physical activity is one of six main aspects in learning[14]. Understanding how teachers translate this policy may be useful for enlightening and re-shaping the curricula for better education in preschool. Also, there has been little attempt to study teachers' views and perception of movement development in the Indonesian context, therefore, this study aims to fill this gap. The purpose of this study is to answer the following questions: 1) how physical activities affect the academic learning; and 2) what are the difficulties of applying physical activities in classroom based on teachers' views?

Several attempts have been made to investigate the implementation of movement activities in preschools. Eighty-nine teachers were interviewed about their views on movement and learning in ECE revealed that young children have a huge desire to move while learning[15]. Therefore, teachers should provide movement activities when teaching academic concepts. Importantly, moving outdoors promotes learning by engaging children's senses and promoting community interaction. The ability of children to actively sense their environment will increase their social awareness towards things around them. The findings were in line with another research in Turkey that noted that supporting physical activity can promote social and emotional competence for children[16]. Through interviews, written documents, and field notes, they identified that although physical activity had cognitive and social-emotional benefits, it was not a core element of the preschool curriculum. Both types of research, however, emphasised that teachers and preschool administration have limited knowledge and ability to provide movement in learning. These studies suggested that

[10] Aaron W. Cashmore and Sandra C. Jones, "Growing up Active: A Study into Physical Activity in Long Day Care Centers," *Journal of Research in Childhood Education* 23, no. 2 (2008): 171–91, https://doi.org/10.1080/02568540809594654.

[11] Rosyid Ridho, Markhamah, and Darsinah, "Pengelolaan Pembelajaran Pendidikan Anak Usia Dini (Paud) Di Kb 'Cerdas' Kecamatan Sukorejo Kabupaten Kendal," *Jurnal Penelitian Humaniora* 16, no. 02 (2015): 59–69.

[12] Sevimli-Celik, Kirazci, and Ince, *op. cit.*

[13] Cashmore and Jones, *loc. cit.*

[14] Kementerian pendidikan dan kebudayaan Republik Indonesia, "Buku Panduan Pendidik Kurikulum 2013," 2014, 4.

[15] Gehris, Gooze, and Whitaker, *op. cit.*

[16] Sevimli-Celik, Kirazci, and Ince, *op. cit.*

preschools should provide a variety of movement education, to improve the quality and appropriateness, specifically, training for teachers is required on how to utilise movement effectively as part of academic learning. Another study from Palmer, Matsuyama, and Robinson (2017) investigates physical activity of eighty-seven preschools students who joined in two different programs. The study found that children who were given opportunity to play in the movement program engaged more time to physical activity and healthier than children who were freely play on the playground[17]. It shows that children should be accommodated to physical activity program to meet their needs, in other words, combining the structured and unstructured physical activity.

Method

This qualitative research is a well-established approach to explore teachers' perceptions of movement activity in preschool. This study was conducted in a preschool located in Kendari city in Indonesia. The preschool is an all-day private school with children aged between 36-62 months who come from middle-income families, in total 45 children, 4 teachers and 2 substitute teachers. Commonly, In Indonesia, children who are less than 4 years old will be placed in Playgroup classroom and 4-6 is in Kindergarten. In order to conduct the research, purposive sampling was applied to select teachers for interviews. Purposive sampling is a recommended method for researchers who want to learn and understand from participants about centre phenomenon[18]. In this qualitative study, therefore, the six female teachers were invited to participate and both were teaching in Playgroup and Kindergarten classes.

Consent forms were provided to the teachers and written agreements were obtained. The criteria for being selected were:

1) having with an education degree;
2) having been actively teaching for at least 5 years in total in preschools; and
3) having been the main teachers responsible for planning learning activities.

The participants were interviewed after school hours. The interviews were conducted in a quiet room to minimize distraction. Semi-formal interviews were conducted in Bahasa Indonesia (teachers' lingua franca). The average time for one interview was 15-25 minutes. An open-ended questionnaire with 15 questions adapted from a study was used to guide the interview[19]. Follow-up questions were then asked and spontaneous prompts were allowed. The interviews were recorded and transcribed completely for later analysis in order to provide depth of comprehension about their opinions.

There was no compulsion for them to participate in this study, therefore, as it was a voluntary activity, they could withdraw at any time. During the interview, the participants would be recorded and they were ensured about their privacy in order to express their opinions and views honestly. Respecting and addressing the participants' situation illustrated the ethical consideration in the study. In order to analyse data, recordings were transcribed verbatim and translated from Bahasa Indonesia into English. Transcripts were carefully read and coded into themes[20]. Emails were sent out to the teachers for clarification if needed to ensure internal validity[21]. Emerging themes were examined separately based on the data in order to come to the final themes.

---

[17] Kara K. Palmer, Abigail L. Matsuyama, and Leah E. Robinson, "Impact of Structured Movement Time on Preschoolers' Physical Activity Engagement," *Early Childhood Education Journal* 45, no. 2 (2017): 201–6, https://doi.org/10.1007/s10643-016-0778-x.

[18] Reilly, *op. cit.*

[19] Gehris, Gooze, and Whitaker, *op. cit.*

[20] Virginia Braun and Victoria Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research in Psychology* 3, no. 2 (2006): 77–101, https://doi.org/10.1191/1478088706qp063oa..

[21] Cresswell, J. W. (2014). *Educational research: Planning, conducting and evaluating qualitative*

Results

Using movement activities to promote learning

All teachers revealed that by using physical activities in their teaching, children showed better academic comprehension. Through physical activities, the teachers had the opportunity to demonstrate the learning materials and their concepts in a fun and interactive activity. Teacher A stated:

> *When I teach the materials, I will start by demonstrating the concepts then I will ask the children to imitate me. For instance, using physical activities to teach the children about animals is really effective because they can pretend to run, jump and fly in order to imitate the animals.*

At the same time, teacher B also underlined that without physical activity, children seemed passive. Because of this, the teacher often used the combination between movement and learning media to effectively improve children level of comprehension. For example, children moved with a hula hoop while counting how long they could do it.

Teachers agreed that physical activities improve children's comprehension. Doing physical activities allowed children to better imagine and analyse the learning concepts. The teachers assumed that physical activities could stimulate and enhance the children's involvement in the learning process which led them to have better academic achievement. In addition, physical activities were depicted as a warm-up activity before children started the learning process. Therefore, the teachers argued that providing physical activities were compulsory as they would raise the children's eagerness to learn actively and vigorously.

Syllabus used in this private school depicted that fine and gross motor development was one of the main objectives as reported in the weekly lesson plan. The teachers also emphasised that although written plan did not cover as much as language, math, moral and social skills in the classroom, physical activity was often used to achieve children's understanding on calculation in daily learning. For example, teacher A demonstrated teaching numbers that were displayed on the floor. She asked children to identify the number by hopping to the particular number.

Another teacher explained that children at age 4-6 years old have active participation in activities such as games and sports program which accommodate physical activity, as mentioned below:

> *In my classroom, most children love to play games and doing some sports where they can learn and release their energy to structured or unstructured activities. I notice that they who actively engage in physical activity can perform better to solve problems in learning activity.*

The similar statements are echoed by other teachers. They feel that some children who experience physical activity in their daily routine always try harder to comprehend learning activity. Especially, when academic concepts are introduced through movement by imitating, acting, singing and dancing. However, some teachers argue that movement and physical activity sometimes can be challenged to integrate into explaining academic concepts.

Improving positive attitudes through physical activities

Applying physical activities significantly enhanced positive attitudes of the children. The teachers noted that engaging in physical activities would allow the children to gain more confidence and enthusiasm in learning. For instance, when a boy imitated a movement

---

and quantitative research (4th edn.)

successfully, he would be praised by other children. This led him to be more enthusiastic in learning, and would even teach other children to do the same thing. As teacher B stated, "children feel enthusiastic if they are allowed to learn new things where they can freely observe, imitate and experience many activities around them". Furthermore, the same teacher also argued that movement activities can increase children's well-being, by stating "when children feel grumpy or bad mood when they are in the classroom, playing a song that allows them to move makes them feel happy".

Most teachers correlate children's movement and well-being. They believe that children who regularly experience movement activity tend to have better self-control, especially their emotion. One teacher also stated that:

"*I have a boy in my classroom who does not like to actively move and I observe he also has difficulty to play with other children in the play area since he avoids any physical activity with his peers. But I always encourage him to choose what type of physical activity he wants in order to motivate him"*

They observe children improve positive energy and participation in the classroom activity when movements are elaborated in the learning. The participation of the children in physical activity does not just show in the classroom but in the play area where they play with all children from different classrooms and ages. This social skill is developed if the children want to engage in the physical activity and otherwise, they will feel isolated if they are reluctant to participate in the physical activity. Fortunately, teachers want to provide various type of movement activity to motivate children and allow them to explore their needs.

Another positive attitude toward movement activities was that children increased their curiosity in the learning activity. For instance, one teacher emphasised that active learning will enhance children's willingness and eagerness to learn a new material in detail. Children can follow direction of the activity and become resilient. They are not easy to give up when they are facing some obstacles from tasks given. Furthermore, based on the lesson document from the school, curiosity is considered to be essential aspect for the children's development. All teachers realised it and acknowledged that facilitating children with physical activities can enhance and satisfy their curiosity to do real activities.

Teachers need support for applying physical activity

The teachers revealed their difficulties regarding using physical activity in learning which might deter them to truly explore the benefits of movement. To begin with, the teachers said that they heavily relied on the equipment to engage in physical activities in the classroom. One teacher mentioned that she could not undertake the physical activities if she did not have appropriate equipment. Another teachers' concern is that they felt it hard to provide the tasks which could cover the children's inherent love of movement during physical activities. The teacher conveyed:

> *I find it hard to cover all the children's needs in physical activities because I have to provide many plans. However, the equipment such as Hula Hoops is not enough for all children's needs.*

Meanwhile, another teacher stated:

> *The challenges are each child has a different character, and I should provide many activities that fit with their characteristics. It is hard to fulfil the desires and needs of each child.*

The teachers also stated that their ability and knowledge of physical activities were limited in order to incorporate physical activities in the learning process. Their current concern is unable to provide a structured and unstructured physical activity related to

children's age and needs. Also, the safety issue of children who are naturally active can be a challenge for teachers who have to supervise and teach at the same time, especially without a clear role and engagement of co-worker.

As a result, the teachers said that they need training on how to plan and apply the physical activity that was considerably effective to overcome their concerns. They also stated that to truly cope with the needs of children in movement activities, they needed more support from parents and school stakeholders to create an environment that is friendly for children.

Discussion

In the interviews, the teachers constantly noticed that through moving children can increase preceding learning ability, more effectively becomes redundant. The learning material would be understood easily if the teachers included the physical activities due to the ability to demonstrate the material in an innovative way[22]. The physical activities not only can stimulate children's awareness to learn but also can be used as a warm-up activity before starting the learning process. When teachers can combine the fun and stimulating activities, it challenges children to feel the enthusiasm and improve their comprehension level in learning[23]. Thus, the ability to initiate movement can stimulate their children's cognitive development, specifically, making the task easier to comprehend and problems easier to solve.

All teachers agreed that children's cognitive development can be improved through physical activity as the review of a study found that physical activity can provide many benefits for children regarding academic performance, working memory, and particularly motor skill development. Both cognitive and motor skill are two interrelated process that the more complex motor intervention activities the more higher order thinking (HOT) develop in children[24].

The teachers' attempt at using physical activities in the classroom can raise children's positive attitudes. The children who are involved in physical activities tend to have better confidence, enthusiasm, and excitement. Children who engage in regular physical activity can demonstrate better feelings and mood[25]. The children also can develop their feeling of happiness and reduce stress through the physical activities. The participants also underline how physical activity encourages children to develop their well-being. Combining rhythm and movement activity to improve children's self-regulatory that contribute to well-being[26]. Additionally, as children are exposed to the physical activities, they have positive experiences to continually engage with and develop the physical activities as they grow to adulthood. Emphasising that "physical activity as an energy balance activity has many benefits for physical, social, and emotional health throughout the life cycle"[27].

However, there should be a clear guideline to promote physical activity in order to prevent unhealthy weight gain that influences children's development. This belief is in line

[22] Gehris, Gooze, and Whitaker, *op. cit.*

[23] Gagen and Getchell, *op. cit.*

[24] Nan Zeng et al., "Effects of Physical Activity on Motor Skills and Cognitive Development in Early Childhood: A Systematic Review," *BioMed Research International* 2017 (2017), https://doi.org/10.1155/2017/2760716.

[25] Chunlei Lu and Brandi Montague, "Move to Learn, Learn to Move: Prioritizing Physical Activity in Early Childhood Education Programming," *Early Childhood Education Journal* 44, no. 5 (2016): 409–17, https://doi.org/10.1007/s10643-015-0730-5.

[26] Kate E. Williams, "Moving to the Beat: Using Music, Rhythm, and Movement to Enhance Self-Regulation in Early Childhood Classrooms," *International Journal of Early Childhood* 50, no. 1 (2018): 85–100, https://doi.org/10.1007/s13158-018-0215-y.

[27] Cashmore and Jones, *op. cit.*

with the concerns about children obesity and unhealthy lifestyle to affect their future development[28]. This issue surprisingly was not the main concern of both teachers which focused on children academic performance and attitude. As a result, there should be more regulation to emphasise the importance of movement activity in preschool.

Interestingly, all teachers did not make clear connection between physical activity applied in the classroom and health factor of children. The emphasising of the benefits of physical activity related to children health is less shown. Experiencing physical activity since young age can significantly contribute to improving their active adult lifestyle[29]. Preschool stakeholders need to work with health promotion specialists in order to improve their understanding regarding the appropriate level of physical activity that needs to be applied in the childcare environment, since teachers are often unable to provide appropriate exercise program to improve children's health[30]. Additionally, in the early childhood curriculum, children's health is mainly focused on food and nutrition which does not mention about the implication of physical activity for children's health. The teacher of this study may not realize the close relationship between physical activity and children's health. There is a significant need to link health promotion to provide understandings on how physical activity can have a great importance to children health[31]. Although the early childhood in Indonesia has the aim to integrate all aspects of development yet it is still far from reaching its goal.

Furthermore, the teachers revealed that the environment of the preschool has an important role to provide physical activity. Specifically, the use of outdoor equipment in promoting physical to explore and cover the children's need[32]. Within this mindset, applying the physical activities means that teachers should plan the task and the equipment that are needed to perform in order to ensure optimal development of children. Therefore, using equipment can encourage the teachers to achieve enough success in teaching physical activities however teachers should not think that physical activities can only occur with equipment.

The result of the study has indicated that the teachers' concerns arise due to the lack of ability to design the physical activities. Because of this limitation, they tend to face difficulties in planning physical activity to meet all children's needs. These limitations may occur because teachers have little or no experience to help young children develop appropriate movement[33]. Training opportunities and adequate equipment should be provided for the teachers in order to assist them with understanding and planning the physical activities to benefit the children[34]. Through the training, the teachers not only choose the appropriate activities but also are able to select the appropriate equipment for children. Encouraging teachers to actively prepare and participate in applying physical activity to develop an active lifestyle for children. Thus, portable equipment becomes the main influence to increase children participation in physical activity.

At the same time, teachers raise an awareness that the safety issue and lack of co-worker understanding of physical activity can become another challenging. Co-teaching in

---

[28] Lu and Montague, *loc. cit.*

[29] Olivia Jm Martyniuk and Patricia Tucker, "An Exploration of Early Childhood Education Students' Knowledge and Preparation to Facilitate Physical Activity for Preschoolers: A Cross-Sectional Study," *BMC Public Health* 14, no. 1 (2014): 1–10, https://doi.org/10.1186/1471-2458-14-727.

[30] Leigh M Vanderloo et al., "Environmental Influences on Preschoolers ' Physical Activity Levels in Various Early-Learning Facilities," 2015, 360–70, https://doi.org/10.1080/02701367.2015.1053105.

[31] Hui Fang et al., "Relationship between Physical Activity and Physical Fitness in Preschool Children: A Cross-Sectional Study," *BioMed Research International* 2017 (2017), https://doi.org/10.1155/2017/9314026. 7

[32] Gagen and Getchell, *op. cit.*

[33] Ibid., h. 230

[34] Martyniuk and Tucker, *loc. cit.*

preschool is commonly applied to fulfil nature and nurture of children's needs. Co-teaching uses a collaboration process that includes describing and interpreting the instructional strategies and explore the supports and barriers of all children with different ages and needs[35]. In planning and applying physical activity, teachers are asked to create partnership with other teachers and parents aiming to get supports. As mentioned in the interview that they feel concerns to accommodate all children's needs, therefore, co-teaching can help them solving these barriers.

The lesson plans that are used in this school have shown children's activities during school time. It reveals that every week children have physical activities that may vary based on the theme of learning, for example, animal or plant theme. This depicts that teachers have full control to plan and provide movement activities that fit with their learning process, which is a great opportunity for teachers to enhance their ability[13]. However, both the school and national curriculum of Early Childhood Education in Indonesia also known as Kurikulum 2013 do not provide an excellent and clear opportunity to establish physical activity, especially guidelines about minimum time spent and source of new ideas for activities[36]. Early childhood teachers who develop and implement curriculum need this information to support their classroom program and inform school stakeholders and family as part of their job.

These findings have significant implications for understanding the early childhood teacher's perspective on applying physical activities in learning. Examining the teacher's perspective indicates that adequate support is needed for current early childhood education in Indonesia. The type of support should be started by providing training and understanding to all teachers regarding the benefits of physical activity, especially to children's health. Importantly, Early Childhood Curriculum in Indonesia should provide clear guidelines related to physical activity expected to cover all ages and needs of children.

However, due to the nature of qualitative research and to limited resource, the study was only conducted in a small sample size. Additionally, this private preschool is fully funded by parents which allows the school to have more flexibility to manage its curriculum compared to the government school in Indonesia.

Future research should, therefore, concentrate on investigating for example teachers' perception in a large and more diverse sample size, for example, in rural or suburban and city areas, to increase generalization. Seeking information about early childhood parents' and school administration's perception in Indonesia may be a further direction of research to enrich the information. Importantly, accommodating children's voice into research can be a fruitful source to examine what type of movement and physical activity they want to engage.

Conclusion

This study has shown that early childhood teachers have a desire to use physical activities in learning due to its potential benefits. Children who engage in physical activities do appear to have better academic comprehension and positive attitudes toward learning. Children are actively involved in the learning process by imitating the movement of things around them, particularly animals. At the same time, children tend to develop a great relationship with their peers during the physical activities. This leads to the ability to improve

[35] Mikyung Shin, Hyunjoo Lee, and John William McKenna, "Special Education and General Education Preservice Teachers Co-Teaching Experiences: A Comparative Synthesis of Qualitative Research," *International Journal of Inclusive Education* 20, no. 1 (2016): 91–107, https://doi.org/10.1080/13603116.2015.1074732.

[36] Cerika Rismayanthi, "Mengembangkan Keterampilan Gerak Dasar Sebagai Stimulasi Motorik Bagi Anak Taman Kanak-Kanak Melalui Aktivitas Jasmani," *Jurnal Pendidikan Jasmani Indonesia* 9, no. 1 (2013): 64–72, https://doi.org/10.21831/JPJI.V9I1.3065.

children well-being toward themselves and others. Moreover, the teachers agreed that it is essential to cover the age-appropriate physical activity and the needs of children to move and to effectively plan and facilitate the physical activities based on the children's needs and ages. Also, the early childhood curriculum needs to provide clear guidance for physical activity in order to respond to the teachers' concern and emphasise physical activity as one indicator of health aspects. Especially, one of the aims of the early childhood curriculum is to integrate all aspects of children development, therefore, all stakeholders need to work together to solve the issues found in the school. Various efforts are needed for structured support for teachers in terms of providing training and suitable equipment for these physical activities. The effort should include a well-defined understanding for all teachers' role in the school in order to achieve the same goal.

References

Braun, Virginia, and Victoria Clarke. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3, no. 2 (2006): 77–101. https://doi.org/10.1191/1478088706qp063oa.

Cashmore, Aaron W., and Sandra C. Jones. "Growing up Active: A Study into Physical Activity in Long Day Care Centers." *Journal of Research in Childhood Education* 23, no. 2 (2008): 171–91. https://doi.org/10.1080/02568540809594654.

Cresswell, J. W. (2014). *Educational research: Planning, conducting and evaluating qualitative and quantitative research* (4th edn.)

Fang, Hui, Minghui Quan, Tang Zhou, Shunli Sun, Jiayi Zhang, Hanbin Zhang, Zhenbo Cao, Guanggao Zhao, Ru Wang, and Peijie Chen. "Relationship between Physical Activity and Physical Fitness in Preschool Children: A Cross-Sectional Study." *BioMed Research International* 2017 (2017). https://doi.org/10.1155/2017/9314026.

Fuller, Bruce, Edward Bein, Margaret Bridges, Yoonjeon Kim, and Sophia Rabe-Hesketh. "Do Academic Preschools Yield Stronger Benefits? Cognitive Emphasis, Dosage, and Early Learning." *Journal of Applied Developmental Psychology* 52, no. October 2016 (2017): 1–11. https://doi.org/10.1016/j.appdev.2017.05.001.

Gagen, Linda M., and Nancy Getchell. "Using 'constraints' to Design Developmentally Appropriate Movement Activities for Early Childhood Education." *Early Childhood Education Journal* 34, no. 3 (2006): 227–32. https://doi.org/10.1007/s10643-006-0135-6.

Gehris, J. S., R. A. Gooze, and R. C. Whitaker. "Teachers' Perceptions about Children's Movement and Learning in Early Childhood Education Programmes." *Child: Care, Health and Development* 41, no. 1 (2015): 122–31. https://doi.org/10.1111/cch.12136.

Hujala, Eeva. "The Development of Early Childhood Education as an Academic Discipline in Finland." *Tidsskrift for Nordisk Barnehageforskning* 1, no. 1 (2008): 17–23. https://doi.org/10.7577/nbf.238.

Indonesia, kementerian pendidikan dan kebudayaan Republik. "Buku Panduan Pendidik Kurikulum 2013," 2014, 4.

Logan, S. W., L. E. Robinson, A. E. Wilson, and W. A. Lucas. "Getting the Fundamentals of Movement: A Meta-Analysis of the Effectiveness of Motor Skill Interventions in Children." *Child: Care, Health and Development* 38, no. 3 (2012): 305–15. https://doi.org/10.1111/j.1365-2214.2011.01307.x.

Lu, Chunlei, and Brandi Montague. "Move to Learn, Learn to Move: Prioritizing Physical Activity in Early Childhood Education Programming." *Early Childhood Education Journal* 44, no. 5 (2016): 409–17. https://doi.org/10.1007/s10643-015-0730-5.

Martyniuk, Olivia Jm, and Patricia Tucker. "An Exploration of Early Childhood Education Students' Knowledge and Preparation to Facilitate Physical Activity for Preschoolers: A

Cross-Sectional Study." *BMC Public Health* 14, no. 1 (2014): 1–10. https://doi.org/10.1186/1471-2458-14-727.

Palmer, Kara K., Abigail L. Matsuyama, and Leah E. Robinson. "Impact of Structured Movement Time on Preschoolers' Physical Activity Engagement." *Early Childhood Education Journal* 45, no. 2 (2017): 201–6. https://doi.org/10.1007/s10643-016-0778-x.

Reilly, John J. "Low Levels of Objectively Measured Physical Activity in Preschoolers in Child Care." *Medicine and Science in Sports and Exercise* 42, no. 3 (2010): 502–7. https://doi.org/10.1249/MSS.0b013e3181cea100.

Rismayanthi, Cerika. "Mengembangkan Keterampilan Gerak Dasar Sebagai Stimulasi Motorik Bagi Anak Taman Kanak-Kanak Melalui Aktivitas Jasmani." *Jurnal Pendidikan Jasmani Indonesia* 9, no. 1 (2013): 64–72. https://doi.org/10.21831/JPJI.V9I1.3065.

Rosyid Ridho, Markhamah, and Darsinah. "Pengelolaan Pembelajaran Pendidikan Anak Usia Dini (Paud) Di Kb 'Cerdas' Kecamatan Sukorejo Kabupaten Kendal." *Jurnal Penelitian Humaniora* 16, no. 02 (2015): 59–69.

Sevimli-Celik, Serap, Sadettin Kirazci, and Mustafa Levent Ince. "Preschool Movement Education in Turkey: Perceptions of Preschool Administrators and Parents." *Early Childhood Education Journal* 39, no. 5 (2011): 323–33. https://doi.org/10.1007/s10643-011-0473-x.

Shin, Mikyung, Hyunjoo Lee, and John William McKenna. "Special Education and General Education Preservice Teachers Co-Teaching Experiences: A Comparative Synthesis of Qualitative Research." *International Journal of Inclusive Education* 20, no. 1 (2016): 91–107. https://doi.org/10.1080/13603116.2015.1074732.

Vanderloo, Leigh M, Patricia Tucker, Andrew M Johnson, Shauna M Burke, and Jennifer D Irwin. "Environmental Influences on Preschoolers ' Physical Activity Levels in Various Early-Learning Facilities," 2015, 360–70. https://doi.org/10.1080/02701367.2015.1053105.

Williams, Kate E. "Moving to the Beat: Using Music, Rhythm, and Movement to Enhance Self-Regulation in Early Childhood Classrooms." *International Journal of Early Childhood* 50, no. 1 (2018): 85–100. https://doi.org/10.1007/s13158-018-0215-y.

Zeng, Nan, Mohammad Ayyub, Haichun Sun, Xu Wen, Ping Xiang, and Zan Gao. "Effects of Physical Activity on Motor Skills and Cognitive Development in Early Childhood: A Systematic Review." *BioMed Research International* 2017 (2017). https://doi.org/10.1155/2017/2760716.