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NATURE PLAYSCAPE FOR PRESCHOOLERS: WHAT THE PARENTS SAYS?

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ABSTRACT

The outdoor recreation space or nature playscape is one of the settings where preschoolers can enjoy nature, play and explore the world. However, in Malaysia, research on learning with nature still needs to be explored, explicitly concerning parents' perspectives, who will choose what is best for their child in terms of space setting for nature play. Most research on the educational system emphasises structured learning and more studies are needed to explore the importance of setting and nature play. This preliminary study examines the parents' view on preschoolers' play behaviour with the needs of nature playscape. A cross-sectional online survey-based study was conducted on Malaysian parents (n=100) of children between ages 3 and 6 (preschoolers). This study found that preschoolers' connection with nature and play in natural playscapes can offer various affordances, including building resilience (68%), promoting physical development (66%), and creating opportunities for discovery (66%). However, the need for supervision and the lack of natural space are the main barriers to outdoor nature play for preschoolers. The study recommends further research to examine the potential of outdoor recreation space features for preschoolers' nature play development and enhancement, to provide more diverse and quality outdoor recreation spaces to support preschoolers' healthy development across the spectrum.

Key words: Outdoor recreation, nature, playscape, preschoolers

INTRODUCTION

Children's access to play was recognised internationally as a fundamental human right. According to Article 31 in The United Nations Convention on the Rights of the Child 1989, every child has the right to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts. The outdoor recreation space or nature playscape is one of the settings where preschoolers can enjoy nature, play and explore the world. Nature playscape encompass various physical activity opportunities within multiple environments that can enhance preschoolers' play development and enhancement (Cengiz & Boz, 2019). According to Erik Erikson's theory, preschoolers, who are at the age of 3 until 6 years old, are able to complete their own objectives,

goals, and explore interpersonal abilities to initiate activities such as planning, developing games, and chasing tasks. Besides, during 3 to 6 years of age, their world will begin to open up, become more independent and more focused (Centres for Disease Control and Prevention, 2021). The connection of preschoolers with nature play also can affect their play behaviour, especially when they direct their own play by choosing what to do, what materials to use, and by forming their own group with others, according to their own interests. The changes of preschoolers' play behaviour occurred when learning through play was implemented while taken into consideration of their physical needs and requirements (Ashari, Kutty, Kosnin & Jiar, 2016). Therefore, the nature playscape must be creative and a free environment to improve preschoolers' understanding and physical exploration.

Recently, study connecting natural outdoor environments and children's well-being continues to grow in many countries as there are renewed interests at both the policy and practice levels to encourage access to outdoor and specifically natural spaces for nature play (Ernst & Burcak, 2019). However, in Malaysia, there is little available knowledge regarding parents' perspectives on providing a playscape for preschoolers to learn with nature, as they are the ones who would decide what is best for their children (Saleh, Latip & Rahim, 2018). Nowadays, preschoolers are surrounded by walls and doors that completely isolate them from the outside world. Von Benzon (2017) stated that, most of the preschools are now designed to limit children's freedom of movement and maximise opportunities for responsible adults to monitor children. The design of playscape also did not meet preschoolers' needs and preferences (Aziz & Said, 2017). As a result, the separation from the natural environment has caused difficulties in preschoolers' developmental process.

Therefore, understanding preschoolers' play behaviour and the needs of nature playscape are essential as nature play influences their development in terms of cognitive, physical, emotional, social, and motor learning, as well as well-being. When learning through nature play was adopted in preschool while taking into consideration their physical demands and requirements, changes in play behaviour occurred (Ashari, Kutty, Kosnin & Jiar, 2016). Hence, this preliminary study aimed to determine parents' perspective on preschoolers' play behaviour with the needs of nature playscape. To consider parent perspectives on nature play for preschoolers in a broader sense, this study employs the theory of affordance (Gibson 2014) as an important theoretical framework. According to this theory, the environment provides opportunities for action and perception to an individual. In other words, the environment offers a range of possibilities for an individual to interact with it. In the context of nature play for preschoolers, the theory of affordance can help researchers understand how the physical environment of a nature playscape can influence the play and activities of preschoolers. Further research will be conducted to explore the potential of natural playscape features for preschoolers' nature play.

Understanding preschoolers' play behaviour and the nature playscape is important because it can inform the development of guidelines for enhancing preschoolers' development through nature landscapes.

RESEARCH METHOD

A cross-sectional study was conducted from 2 April 2023 to 31 May 2023 as a preliminary study, through the dissemination of an online survey. A convenient sampling method was used with 100 samples (parents of children aged 3 to 6 years), living in Petaling District, the most populated district in Selangor, Malaysia. The use of 100 samples would give a statistical accuracy of ± 6.4 per cent at the 80 per cent confidence level. Doody and Doody (2015) stated that small-scale versions of the main study involve recruiting a limited number of participants who share similar characteristics with those in the full-scale study. Therefore, the researcher used a sample size of 100 as it is a reasonable approach for a preliminary study examining parents' views on preschoolers' play behaviour with the needs of nature playscape. Although it may not fully represent the larger population of parents with preschoolers, this preliminary study can provide valuable insights and information that can be used to refine research questions and methods for future studies.

The survey questions used in this study were carefully developed based on the developmental stages, play preferences, nature play benefits, and limitations for preschoolers. The questions were designed to be appropriate and effective for exploring these areas. To achieve this, the survey sections were adapted from various references, including Ernst (2018), Gallagher (2015), and Loebach and Cox (2020), which are sources in the field of child development and nature play. These sources provided valuable insights into the topic, which were incorporated into the survey questions. The questions were then reviewed and validated by three experts in the research field. This process involved ensuring that the questions were clear, concise, and effective in eliciting the desired responses from participants. Once the questions had been validated and approved, the survey link was sent out to the public using Google Forms.

The methodological framework can be seen in Figure 1, which includes three phases of activities. This preliminary study, referring to Phase 1, aimed to determine parents' perspectives on preschoolers' play behaviour with the needs of nature playscape. In the further full-scale study, findings from Phase 1 will be adapted for observation activities in Phase 2, using TOPO form. Tool for Observing Play Outdoors (TOPO) will be used to observe a sample of 6 (preschoolers) in recreational parks around Petaling Jaya and Putrajaya. According to Loebach and Cox (2020), this new tool represents a significant advance in study and planning outdoor playful environments

to provide more diverse, high-quality play settings that will support the healthy development of children across the spectrum. The preschoolers' play behaviours and the needs of nature playscape will be described. Next, after gaining understanding on preschoolers' play behaviour and nature playscape, further discussion will be conducted to determine the natural elements that are significantly associated with preschoolers' development. As a result, the guidelines of nature playscape for preschoolers' development and enhancement can be developed.

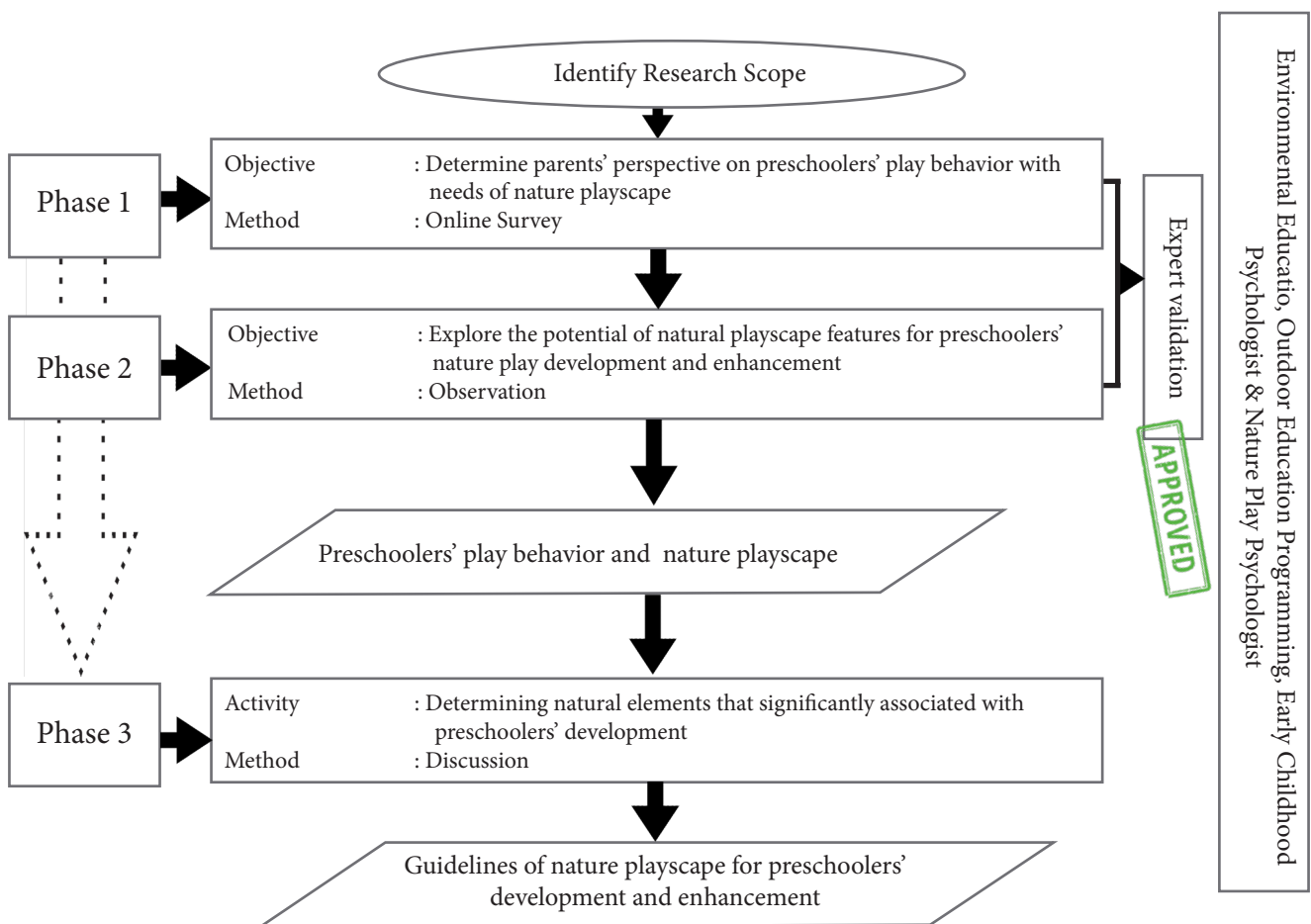


Figure 1: Methodological framework

RESULTS AND DISCUSSION

The preliminary study's findings revealed that 100 respondents self-reported having children aged 3 to 6 years old. Table 1 shows the demographic characteristics of the parent respondents from the cohort. Briefly, the results indicated that respondents were 91% moms and 9% dads. Majority of the respondents were housewives (48%). Most respondents reported being professionally educated, with 56% having a bachelor's degree, 18% diploma, 13% Master and 6% having PhD. Most of their children were three years old (33%). Over 55% of preschoolers were male, first born (53%) and received early childhood care and education (ECCE) at preschools or kindergartens (43%). Parental demographics especially on gender and education level may influence how parents view

and encourage their children's engagement in nature play. According to Hadjicharalambous and Dimitriou (2020), gender was found to be a significant determinant of the parental style that fathers and mothers adopt. Furthermore, Coleman and Karraker (2000) stated that a mother's high level of education improves a child's cultural development. Their research showed that educated mothers seemed to have a wider range of knowledge about children's development and they applied more effective parenting practices and strategies, thus achieving better interaction with their children. Kyazze, Maani, and Lubaale (2020) also believed that mothers were more expressive and supportive in their relationship with their children than fathers. These findings suggest that parental demographics should be considered when promoting nature play and other forms of outdoor play for children.

Table 1: Demographic characteristics of the respondents (n = 100)

Parents Demographics			Child Demographics		
Characteristics	Frequency	Percentage %	Characteristics	Frequency	Percentage %
Relation with the child			Age		
Father	9	9.00	3 Year	33	33.00
Mother	91	91.00	4 Year	24	24.00
Profession			5 Year	28	28.00
Government sector employee	15	15.00	6 Year	15	15.00
Private sector employee	22	22.00	Gender		
Self-employed	13	13.00	Male	55	55.00
Housewife	48	48.00	Female	45	45.00
Unemployed or retired	2	2.00	Birth order		
Highest education			The only child	23	23.00
Secondary school	1	1.00	First-born	53	53.00
High school	6	6.00	Second-born	14	14.00
Diploma	18	18.00	Third-born and above	10	10.00
Degree	56	56.00	ECCE		
Master	13	13.00	Preschools or Kindergartens	43	43.00
PhD	6	6.00	Childcare Centres or Nurseries	10	10.00

Respondents were also questioned about the frequency of parent-child play in another section of the survey. According to Table 2, over 38 per cent of respondents often play indoors, which is done within a building, whereas 43 per cent of respondents often play outdoors, which is done outdoors, carried out in an outdoor space in contact with nature features. One notable finding was that 36 per cent of respondents played using technological devices such as a computer, tablet, smart phone, and others. According to the Centres for Disease Control and Prevention (2021), preschoolers should develop autonomy and focus skills between the ages of 3 and 6. Parents can play

a crucial role in helping their children develop these skills by encouraging decision-making, providing opportunities for play, setting routines, using positive reinforcement, and limiting screen time. Tang et al. (2023) also highlighted that mobile devices can be a useful and easy tool to encourage preschoolers' independent learning at home. Selecting well-designed games and setting limited playtime can help preschoolers learn while having fun. By implementing these strategies, parents can help their children become more self-sufficient and focused, which can benefit them in various aspects of life.

Table 2: Frequency of parent-child play (n=100)

Statements	Percentage (%)				
	Never	Rarely	Sometimes	Often	Always
Playing indoor (carried out inside a building)	-	3.00	23.00	38.00	36.00
Playing outdoor (carried out in an outdoor space, contact with nature)	-	7.00	35.00	43.00	15.00
Playing using technology devices (computer, tablet, smart phone, etc.)	14.00	36.00	22.00	15.00	13.00

Based on the result in **Table 3**, respondents were asked about parent-child outdoor playtime at different settings. The majority of respondents in this preliminary study spent an hour at outdoor playgrounds (41%), where there are play structures, as opposed to green spaces (39%), which lack play structures and may include public parks or open fields. Over 33 per cent of respondents said they spend two hours at a natural water recreation area, such as a beach, the ocean, a river, or a lake. According to Hyunshik, Jiameng, Sunkyoung and

Ying (2021), reduction of preschoolers' outdoor playtime may have a substantial impact on their physical activity, as preschoolers' preferences for physical activity were found to be connected to parental rules regarding active play outdoors (Zurita, 2023). Therefore, it's important for parents to give their children time, freedom and choice to play. If an adult makes all the decisions about how, what and when their child plays, the child won't enjoy their play experiences.

Table 3: Parent-child outdoor playtime at different setting (n=100)

Setting	Percentage (%)				
	Less than half an hour	1 hour	2 hours	3 hours	More than 4 hours
At an outdoor playground (facilities that are designed for children to play)	13.00	41.00	27.00	8.00	11.00
In green spaces area (no playground facilities, public park or open field)	16.00	39.00	26.00	11.00	8.00
Natural water recreation area (beach, sea, river, lake)	18.00	14.00	33.00	18.00	17.00

Following that, parents responded to the sections on the benefits of nature playscape for preschoolers. According to Table 4, more than 60 per cent of parents strongly agreed that connecting preschoolers with nature playscapes provides resilience development (68%), physical development (66%), opportunities for discovery (66%), and anxiety and depression symptoms reduction (64%). As supported by Salih and Ismail (2017), play in nature provides opportunities for growth, creativity, and social interaction and can be

summarised in five components: physical, mental, spiritual, social, and environmental. However, 5 per cent of respondents strongly disagreed with the benefits of nature playscape for the development of preschoolers. Furthermore, parents were asked if they thought that preschoolers should be allowed to choose their favourite activities during nature play. Unfortunately, the results revealed that 5 per cent of parents strongly disagreed and 1 per cent disagreed with allowing preschoolers to play freely in nature.

Table 4: Parent's perspectives on benefits of nature playscape for preschoolers (n=100)

Benefits of nature playscape	Percentage (%)				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Opportunities for discovery	5.00	-	4.00	25.00	66.00
Resilience development	5.00	1.00	3.00	23.00	68.00
Physical development	5.00	-	3.00	26.00	66.00
Anxiety and depressive symptoms reduction	5.00	-	4.00	27.00	64.00
Freedom	5.00	1.00	8.00	30.00	56.00

The question on whether preschoolers should be given the freedom to choose their preferred activities during nature play, is still being debated. Results from various studies show that while many parents agree that play in nature is beneficial for their children, some parents have concerns or barriers that prevent them from allowing their children to play freely in nature. The findings in

Table 5 show that 43 per cent of parents agreed the main barriers to nature play for preschoolers were a lack of space at or near home and the requirement for supervision. Additionally, over 42 per cent of parents agreed that inclement weather was one of the greatest impediments to preschoolers engaging in nature play.

Table 5: Parent's perspectives on barriers of nature playscape for preschoolers (n=100)

Factors	Percentage (%)				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Lack of space at/near home location	4.00	3.00	18.00	43.00	32.00
Unfavourable weather	3.00	8.00	25.00	42.00	22.00
Need for supervision	1.00	1.00	19.00	43.00	36.00

Preschoolers' personality growth is due to play. While playing, children learn self-satisfaction, self-development, self-esteem, acceptance of rules, self-control, patience, a sense of adventure, creativity, awareness, freedom, power, defence of rights, the ability to control aggression, accuracy, stamina, emotional equilibrium, cognitive and social skills (Agarwal, Sehgal & Ogra, 2021). Besides, through play and the exploration of natural elements, it is possible to promote education in its broadest sense (Bento & Dias, 2017). Therefore, well planned nature playscapes are needed. The outdoor setting that can be described as an open and constantly changing environment should be creative and a free environment to improve preschoolers' understanding and physical exploration (Bento & Dias, 2017, Ristianti & Widjajanti, 2020). Having a safe playscape is important for preschoolers to test their physical, behavioural and emotional limits. With the theory of affordance in mind, it is no surprise that preschoolers utilise such environments for play. Affordance involves what the environment affords the preschoolers and the complementarity of the c preschoolers and the environment (Gibson 2014). Salih and Ismail (2017) also discovered that other than providing opportunities for growth, creativity and fosters social interaction, the role playscape also can be summarised in terms of five different components: physical, mental, spiritual, social and environmental. While play in nature provides numerous benefits for preschoolers' well-being, some parents have concerns or barriers that prevent them from allowing their children to play freely in nature. Addressing these concerns and barriers, including lack of access to natural areas, unfavourable weather and need for supervision, can help promote play in nature for preschoolers.

CONCLUSION

In summary, learning from nature is beneficial to human beings, especially for preschoolers' development. There is a necessity for a clear understanding of the issues on the preschoolers' play opportunity and needs of nature playscape. This preliminary study showed that most of the parents were able to recognise the importance of nature play for preschoolers' healthy growth and believed that the connection of preschoolers with nature while playing in the appropriate playscape can offer various affordances. More than 60 per cent parents strongly agreed that the connection of preschoolers with nature playscape offers opportunities for resilience development, physical development, discovery learning, anxiety and depressive symptoms reduction. This study also highlights that the main barriers of nature play for preschoolers from parents' view were need for supervision, lack of space at/near home location and unfavourable weather factor. To sum up, accessing nature play is very important for the development and physical well-being of the preschoolers and to attract preschoolers towards nature, there is a need to develop playscape as their needs for a safer child-friendly environment. Therefore, parents should focus more on the exploration of the playscape while educators or park managers should implement decisions into practice on planning suitable playscapes, with the aim of reconnecting the preschooler with nature, for today and indeed for the future.

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