

## Erken Çocukluk Dönemi Din Eğitiminde Fiziksel Engelli Çocuklar İçin Doğa Temelli Öğrenme Ortamları

Saadet İDER 

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<p><b>Makale Geçmişi</b> <b>Geliş:</b> 20.04.2024 <b>Kabul:</b> 25.06.2024 <b>Yayın:</b> 30.06.2024</p> <p><b>Anahtar Kelimeler:</b> Din Eğitimi, Erken Çocukluk Dönemi Din Eğitimi, Doğa Temelli Eğitim, Öğrenme Ortamı, Fiziksel Engel.</p>	<p>Bu çalışma, doğa temelli eğitimin çocuklar için yararına dikkat çekerek erken çocukluk dönemi din eğitiminde fiziksel engelli çocuklar için doğa temelli öğrenme ortamlarının nasıl oluşturulması gerektiğini ortaya koymayı amaçlamaktadır. Araştırma, sistematik literatür analizi yöntemiyle gerçekleştirilmiştir. İlgili çalışmalar incelenmiş ve erken çocukluk dönemi din eğitiminin kazanımlarına uygun düşen doğa temelli öğrenme ortamının taşınması gereken özellikler belirlenmeye çalışılmıştır. Araştırma sonunda, erken çocukluk dönemi din eğitiminde hedeflenen davranışlar için doğanın ve doğal unsurların çocukların sosyal, bilişsel ve duyuşsal gelişimlerine uygun olduğu, doğal materyallerle kurgulanmış öğrenme ortamlarında gerçekleştirilecek etkinliklerin onların inanç ve ahlak eğitiminde etkin biçimde kullanılabilmesi ortaya konulmuştur. Engelli çocuklar için tasarlanacak öğrenme ortamlarında çocukların engel durumuna göre onların erişimine, aktif katılımına, doğa ile temasına ve doğal materyalleri kullanımına imkân veren düzenlemelere ilişkin önerilere yer verilmiş, bu düzenlemeler erken çocukluk dönemi din eğitimi müfredatında yer alan hedef davranışlarla ilişkilendirilmiştir.</p>

### Nature-Based Learning Environments for Physically Disabled Children in Early Childhood Religious Education

Article Info	Abstract
<p><b>Article History</b> <b>Received:</b> 20.04.2024 <b>Accepted:</b> 25.06.2024 <b>Published:</b> 30.06.2024</p> <p><b>Keywords:</b> Religious Education, Early Childhood Religious Education, Nature-Based Education, Learning Environment, Physical Disability.</p>	<p>This study aims to explore the benefits of nature-based education for children and reveals how to create nature-based learning environments for preschool children with physical disabilities in religious education. The study was conducted using the systematic literature review. It analyzes related studies and reveals the principles of the nature-based learning environments according to the learning outcomes of early childhood religious education. At the end of the research, it is concluded that natural elements are beneficial both for the social, cognitive, and affective development of children and that activities conducted in learning environments with natural materials can be used effectively in faith and moral education of children. It is proposed that arrangements should be made to allow access, active participation, contact with nature, and the use of natural materials according to the physical disability of the children in the learning environments to be designed for children with disabilities. The arrangements are associated with target behaviors in the curriculum of early childhood religious education.</p>

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## Introduction

Nature is a unique entity that fulfills the physical needs of human beings through its material aspect and supports their cognitive and affective development through its spiritual aspect. Human beings relate to nature in physical, emotional, and spiritual dimensions.<sup>1</sup> Therefore, nature is vital for satisfying human beings' physical, spiritual and esthetic needs.<sup>2</sup> Contact with nature reduces stress, provides motivation, heals psychological wounds, helps people develop a whole identity, and promotes interaction and a sense of community.<sup>3</sup> With the help of various plants, animals, wildlife, green spaces, and gardens improve human health and protect against diseases.<sup>4</sup> Nature contributes to spiritual and physical healing. The sense of being in nature creates a psychological effect because color, form, sound, movement, touch, smell, and taste are artistic expressions that give people a deep and comprehensive information about themselves and nature.<sup>5</sup> Touching nature's elements, listening to nature's sounds, or even watching a nature scene can positively effects on one's emotional state.<sup>6</sup> Studies have revealed that contact with nature or nature-based outdoor activities has a positive effect on general health, well-being, independent movement, social and physical development, stress, and anxiety.<sup>7</sup> Considering the benefits provided by nature, human beings should spend more time with nature and benefit more from it. However, humans have little contact with the natural world.<sup>8</sup>

Nature inspires positive emotions in children through its inherent dynamism, energy, and liveliness. It stimulates children's senses and allows them to explore and develop their creativity.<sup>9</sup> Enjoying dynamic and emotionally evocative environments, children interact with the physical environment.<sup>10</sup> Nature is an inexhaustible source of learning and discovery. Experiences in nature contribute to mental development through multiple senses and the formation of cognitive structures.<sup>11</sup> Tactile materials are particularly useful for teaching theoretical subjects. Therefore, natural materials are used as functional tools for achieving such outcomes in childhood education.

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- <sup>1</sup> Kumara Ward, *Econnection in Early Childhood Education: Synergies in Inquiry Arts Pedagogies and Experiential Nature Education* (Western Sydney University, 2017), 16.
- <sup>2</sup> Catherine Broom, "Exploring the Relations Between Childhood Experiences in Nature and Young Adults' Environmental Attitudes and Behaviours", *Australian Journal of Environmental Education* 33/1 (2017), 35.
- <sup>3</sup> Kati Pitkänen vd., *Nature-based integration* (Denmark: Rosendahls, 2017), 8.
- <sup>4</sup> Ulrika Stigsdotter vd., "Nature-Based Therapeutic Interventions", *Forests Trees and Human Health*, ed. Kjell Nilsson vd. (New York: Springer, 2011), 311.
- <sup>5</sup> Ward, *Econnection in Early Childhood Education: Synergies in Inquiry Arts Pedagogies and Experiential Nature Education*, 16.
- <sup>6</sup> Sima Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", *Süleyman Demirel Üniversitesi Mimarlık Bilimleri ve Uygulamaları Dergisi* 1/1 (2016), 53.
- <sup>7</sup> Nancy Wells - Gary Evans, "Nearby nature a buffer of life stress among rural children", *Environment and Behavior* 35/3 (2003), 311-330; Allen Cooper, "Nature and the Outdoor Learning Environment: The Forgotten Resource in Early Childhood Education", *International Journal of Early Childhood Environmental Education* 3/1 (2015), 85-97.
- <sup>8</sup> Luke A. Vitagliano vd., "Group Nature-Based Mindfulness Interventions: Nature-Based Mindfulness Training for College Students with Anxiety", *International Journal of Environmental Research and Public Health* 20/1451 (2023), 4.
- <sup>9</sup> Terence Lewis, *Youth and Nature: Assessing the Impact of an Integrated Wellness Curriculum on Nature Based Play and Nature Appreciation for Youth in Out-of-school Time Recreation Programming* (Minneapolis: The University of Minesota, Doktora Tezi, 2009), 19.
- <sup>10</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 52.
- <sup>11</sup> Merve Ceylan, "Doğa Etkinliklerine Katılan Çocukların 'Doğa' Kavramına İlişkin Metaforik Algılarının İncelenmesi", *İnönü Üniversitesi, Beden Eğitimi ve Spor Bilimleri Dergisi* 6/2 (2019), 39.

Nature-based education was first developed in Scandinavia and Germany.<sup>12</sup> The extension of the researches on nature emerged in the late 19th and early 20th centuries. The relationship with nature at that time has been influential in nature-based education.<sup>13</sup> Nature-based education is known by various names, such as nature-based kindergarten, nature kindergarten, and forest school. What they all have in common is that nature forms the basis of their educational philosophy and methods.<sup>14</sup> These schools share a common view that children should have frequent contact with nature to support their development and develop a lifelong relationship with nature.<sup>15</sup> Childhood experiences with the natural environment shape their attitudes and behavior.<sup>16</sup> In addition, frequent contact with nature during childhood is an important experience that carries over to adulthood.<sup>17</sup> In other words, childhood experiences with nature are related to attitudes toward nature in adulthood.<sup>18</sup>

J.J. Rousseau argued that nature should be used in education because the child needs it, and it should be used for the physical, emotional, and moral development of the child.<sup>19</sup> Children who participate in nature have outcomes such as self-confidence, active learning, socialization, love of nature, environmental sensitivity, and awareness of recycling.<sup>20</sup> In addition, natural learning environments support self-regulation skills, physical and motor development, cognitive development, academic performance, self-confidence, and sensitivity to ecosystems and the environment, and reduce attention deficit hyperactivity disorder.<sup>21</sup> Nature-based learning is also effective in acquiring knowledge, skills, attitudes, behaviors, and values and contributes to academic success, environmental awareness, and personal development.<sup>22</sup> Over the past five years, numerous studies have revealed that nature-based preschool education has positive effects on children's health and cognitive skills as well as their growth and development.<sup>23</sup>

Nature-based learning can occur formally or informally. Informal learning is experienced through play and exploration in outdoor settings such as camps, home or school gardens, natural areas, and childcare centers while formal learning is experienced through the child's contact with nature in schools, kindergartens, and childcare centers.<sup>24</sup> If formal learning occurs in informal learning environments, it enables learners to explore, observe, research, question,

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<sup>12</sup> Tory S. Cordiano vd., "Nature-Based Education and Kindergarten Readiness: Nature-Based and Traditional Preschoolers are Equally Prepared for Kindergarten", *International Journal of Early Childhood Environmental Education* 6/3 (2019), 19.

<sup>13</sup> Stanley F. Sampson, *Transformative Leadership In Nature-Based Preschool Education* (Portland: University of New England, Doktora Tezi, 2021), 18.

<sup>14</sup> Cordiano vd., "Nature-Based Education and Kindergarten Readiness: Nature-Based and Traditional Preschoolers are Equally Prepared for Kindergarten", 19.

<sup>15</sup> Rachel Larimore, "Defining Nature-Based Preschools", *The International Journal of Early Childhood Environmental Education* 4/1 (2016), 33-34.

<sup>16</sup> Nilüfer Köşker, "Okulöncesi Çocuklarında Doğa Algısı", *Bolu Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi* 19/1 (2019), 295.

<sup>17</sup> Silvia Colvado vd., "Experiencing Nature in Children's Summer Camps: Affective, Cognitive and Behavioural Consequences", *Journal of Environmental Psychology* 33 (2013), 37.

<sup>18</sup> Broom, "Exploring the Relations Between Childhood Experiences in Nature and Young Adults' Environmental Attitudes and Behaviours", 38.

<sup>19</sup> Akyüz, "Eğitimde Çocuk Doğa ve Çevre Korunması İlişkileri", 89.

<sup>20</sup> Hüseyin Çalışkan vd., "Değerler Eğitimi Bağlamında Planlanan Doğa Eğitimi Programına İlişkin Veli Görüşleri", *International Journal of Field Education* 7/1 (2021), 79.

<sup>21</sup> Allen Cooper, "Nature and the Outdoor Learning Environment: The Forgotten Resource in Early Childhood Education", *International Journal of Early Childhood Environmental Education* 3/1 (2015), 86.

<sup>22</sup> Cathy Jordan - Loise Chawla, "A Coordinated Research Agenda for Nature-Based Learning", *Frontiers in Psychology* 10/766 (2019), 2.

<sup>23</sup> Sampson, *Transformative Leadership In Nature-Based Preschool Education*, 23-24.

<sup>24</sup> Jordan - Chawla, "A Coordinated Research Agenda for Nature-Based Learning", 2.

and cope with reality and offers them a funny, free, and lasting learning experience.<sup>25</sup> This study focuses on formal learning in nature-based learning environments for early childhood religious education. Although nature-based kindergartens are a new school model and their number is growing rapidly,<sup>26</sup> formal religious education in early childhood lacks nature-based learning environments in Turkey. This study addresses the need for nature-based learning environments in early childhood religious education, specifically for physically disabled children.

## 1. Aim and Method

Studies focusing on learning in nature and being conducted with an interdisciplinary approach are gaining importance.<sup>27</sup> However, innovative approaches that focus on nature have not yet been discussed in early childhood religious education in Turkey. This study aims to examine the benefits of nature-based learning and proposes the creation of nature-based learning environments for physically disabled children in religious education. Related studies have discussed curriculum development for early childhood religious education,<sup>28</sup> the role of religious education in coping with disability,<sup>29</sup> the challenges faced by hearing-impaired individuals in formal and non-formal religious education,<sup>30</sup> and approaches to early childhood religious education.<sup>31</sup> Another study proposes a methodology on nature and the Qur'an in religious education.<sup>32</sup> Other related studies have addressed religious education outside school.<sup>33</sup>

This study addresses the need for nature-based learning in early childhood religious education and proposes designing nature-based learning environments for disabled children. The study was conducted using the systematic literature review. It analyzes related studies and identifies how nature-based learning environments contribute to early childhood religious

<sup>25</sup> Muhammet Mustafa Bayraktar-Saliha Bozer Bayraktar, "Din Öğretiminde Okul Dışı Öğrenme Ortamlarının İncelenmesi: Kırşehir Kültür Varlıkları ve Sanat Eserleri", *Türkiye İlahiyat Araştırmaları Dergisi* 7/2 (2023), 317.

<sup>26</sup> Larimore, "Defining Nature-Based Preschools", 34.

<sup>27</sup> Temiz - Karaaslan Semiz, "En iyi Öğretmenim Doğa: Okul Öncesinde Doğa Temelli Eğitim Uygulamaları Projesi Kapsamında Hazırlanan Öğretmen Etkinlikleri", 328.

<sup>28</sup> Sümeyra Uzun, *Okul Öncesi Din Eğitiminde Program Geliştirme Süreçlerinde İlke ve Yaklaşımlar* (İstanbul: Marmara Üniversitesi Sosyal Bilimler Enstitüsü, Doktora Tezi, 2022); Davut Doğan, "Diyanet İşleri Başkanlığı Kur'an Kursları Öğretim Programı (Okul Öncesi Dönemi) Dini Bilgiler-1 Öğrenme Alanı Kazanımları Üzerine Değerlendirme", *Kahramanmaraş Sütçü İmam Üniversitesi İlahiyat Fakültesi Dergisi* 12/24 (2014), 201-225; Mustafa Çoban, "Diyanet İşleri Başkanlığı Kuran Kursu Öğretim Programı (Okul Öncesi Dönemi) Öğrenme Alanı Dini Bilgiler II Kazanımlarının Okul Öncesi Çocuğun Gelişimi Açısından Değerlendirilmesi" *VI. Ulusal Din Görevlileri Sempozyumu*, (Konya: Kültür Yayınları, 2017), 124-149.

<sup>29</sup> İslam Musayev, *Engelli Bireylerin Din Eğitimi* (Bursa: Uludağ Üniversitesi Sosyal Bilimler Enstitüsü, Doktora Tezi, 2013).

<sup>30</sup> Mustafa Başkonak, *Türkiye'deki Lise Mezunu İşitme Engellilerin Din Eğitiminde Karşılaştıkları Güçlüklerin Öğrenci ve Eğitimci Görüşleri Açısından Değerlendirilmesi* (Konya: Necmettin Erbakan Üniversitesi Sosyal Bilimler Enstitüsü, Doktora Tezi, 2016).

<sup>31</sup> Tecelli Karasu, "Erken Çocukluk Dönemi Din Eğitiminde Yapılandırmacı Öğrenme Anlayışının İmkani", *İslam Düşüncesi Araştırmaları*, ed. Abdülcelil Bilgin - Yusuf Aydın (Ankara: Araştırma Yayınları, 2019), 405-434; Aybiçe Tosun, "Erken Çocukluk Dönemi Din Eğitimi Yaklaşımları Üzerine Karşılaştırmalı Bir Analiz", *Amasya İlahiyat Dergisi* 12 (2019), 121-151.

<sup>32</sup> Fatih Menderes Bilgili, "Din Eğitiminde Kur'an'ın Anlaşılmasında Doğanın ve Kur'an'ın Kazandırdığı İlmi Metodolojinin Önemi", *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi* 5/11 (2018), 141-154.

<sup>33</sup> Çelik, Rahime - Evcimik, Sare, "Okul-Cami Buluşması Projesi Üzerine Nitel Bir Araştırma". *Diyanet İlmi Dergi* 57 (Mart 2021), 457-486; Göküş, Şeref. "Din Öğretiminde Gezi-Gözlem Yöntemi ve Bir Uygulama Örneği", *TYB Akademi Dil Edebiyat ve Sosyal Bilimler Dergisi* 28 (Ocak 2020), 115-144; Tosun, Cemal. "Din Öğretiminde Gezi Gözlem Yöntemi", *Din Öğretimi Dergisi* 40 (1993), 23-32.

education. The study reveals the principles of nature-based learning environments according to the learning outcomes.

## 2. Nature in Religious Education

The relationship between man and nature has existed since ancient times.<sup>34</sup> Human beings have existed in need of nature, and nature has existed in need of human beings.<sup>35</sup> The age of hunting and gathering ensured an emotional connection with nature and other living creatures, and humans have inherited this connection.<sup>36</sup> The enduring emotional connection between humans and nature stems from their similarity. The order of nature is almost entirely encoded in the creation of the human being. According to the Islamic belief, human beings are created from the soil. Therefore, there is an essential unity between them and the earth. Human beings sustain their existence using elements that come from the earth and eventually return to it.<sup>37</sup> The essences of human and nature are similar in that the color, diversity, vitality and continuity are seen in both man and nature. This is because all beings in the universe follow an endless process of rapid formation, change and progression, disappearing and appearing. It is God who directs this process in which nature has contact with both its creator and the creatures. Integrating with God and human, nature reveals wisdom in its essence.<sup>38</sup> In this way, humans discover a deep connection between nature and the Sacred being and establish a relationship between religion and nature.<sup>39</sup>

Among the monotheistic religions, Islam addresses the spiritual value of nature and advises humans to live in harmony with other creatures.<sup>40</sup> God Almighty created man from the earth, placed him in it, and established universal rules for mankind to benefit from the earth.<sup>41</sup> Therefore, dominating nature is unacceptable in Islam. Humans and nature have a unique harmony, and humans can benefit from nature.<sup>42</sup> According to Nasr, mankind has failed to appreciate this divine gift of the Creator. Although nature has been sanctified by the Sacred being, its sanctity has been lost.<sup>43</sup> Materialism and modernism have deprived human of spiritual support by nature. The positivist perspective has caused people to lose their sensitivity to nature and its spiritual values.<sup>44</sup> Secularism has ignored the relationship between religion and nature by positioning nature outside of God. Therefore, theology should reformulate its assumptions about nature in modern societies where religious belief has lost its strength.<sup>45</sup> Therefore, it is possible to rediscover and reconstruct its sacredness through religion and the activation of religious information about nature.<sup>46</sup>

<sup>34</sup> Ergin Ögçem, "İnsan-Doğa İlişkisinde Ahlaki Bir Neden Olarak Tanrı Faktörü", *İnsan ve Toplum Bilimleri Araştırma Dergisi* 5/8 (2016), 2956.

<sup>35</sup> İbrahim Özdemir, "Kur'an ve Çevre", *İslami İlimler Dergisi* 2/1 (2006), 138.

<sup>36</sup> Ceylan, "Doğa Etkinliklerine Katılan Çocukların 'Doğa' Kavramına İlişkin Metaforik Algılarının İncelenmesi", 39.

<sup>37</sup> İbrahim Hilmi Karşlı, "Çevre Sorunu ve Kuran'ın Doğal Çevre Öğretisi", *Diyanet İlmi Dergi* XLVIII/1 (2012), 102.

<sup>38</sup> Saim Gündoğan, "Din Felsefesi Açısından Doğa ile Bütünleşmek: Doğa ve Ekolojik Bilincin Oluşumuna Dair Bir Deneme", *Ondokuz Mayıs Üniversitesi İlahiyat Fakültesi Dergisi* 52 (2022), 18-24.

<sup>39</sup> Fatemeh Al-sadat Shojaei, "Landscape Linking Religion and Nature in the Caucasus", *Journal of Art & Civilization of the Orient* 2/4 (2014), 13.

<sup>40</sup> Temel Yeşilyurt, "Doğanın Epistemolojik Analizi", *Harran Üniversitesi İlahiyat Fakültesi Dergisi* 8 (1999), 220.

<sup>41</sup> Murat Kayacan, "Fizilali'l-Kuran'da İnsan Doğa İlişkisi", *Eskiyeni* 21 (2011), 83.

<sup>42</sup> Ahmet Erkol, "İslam Kozmoloji Öğretisinde Allah - Tabiat ve İnsan İlişkisi Bağlamında Doğa ve Doğanın Korunması", *Marife* 18/2 (2018), 582.

<sup>43</sup> Seyyid Hüseyin Nasr, *Tabiat Düzeni ve Din* (İstanbul: İnsan Yayınları, 2002), 276.

<sup>44</sup> İbrahim Hilmi Karşlı, "Çevre Sorunu ve Kuran'ın Doğal Çevre Öğretisi", *Diyanet İlmi Dergi* XLVIII/1 (2012), 95.

<sup>45</sup> Yeşilyurt, "Doğanın Epistemolojik Analizi", 220.

<sup>46</sup> Nasr, *Tabiat Düzeni ve Din*, 276.

Religious perspectives on nature and natural events play an important role in the societies' educational views.<sup>47</sup> Rousseau used nature to explain the existence of God and the immortality of the soul.<sup>48</sup> Assuming that the universe offers signs of God's existence, Ibn Sina also tried to prove God's existence through nature.<sup>49</sup> Montessori claimed that nature could be used for religious education.<sup>50</sup> Therefore, using nature in religious education can contribute to children's faith and moral development since early childhood. Nature-based learning environments are particularly proposed for children with disabilities, who are deprived of rich learning environments.

### **3. Nature-Based Learning Environments for Physically Disabled Children's Religious Education**

Physical disability is an orthopedic disorder that makes it difficult to reach certain areas, work, perform daily activities, and adapt to the environment. In addition, disabled children have the same basic needs, regardless of their disability.<sup>51</sup> The need for learning and playing should be met for children with disabilities as well as for other children. Some schools are designed in different environments according to the disability. Disabled children's right to formal education is respected and appropriate learning environments are prepared for them at schools. However, preschool education for children with disabilities is ignored because it is not compulsory.

Traditional education fails to provide children with the skills required for modern life. For this reason, researchers have addressed alternative learning environments for children. Learning environments that include nature eliminate the monotony of traditional education, which may be boring and static, especially for young children. In contrast to traditional education, which involves limited outdoor activities, education in outdoor areas is more advantageous.<sup>52</sup> Outdoor activities positively affect the well-being and health of preschool children and develop them cognitively, linguistically, physically, socially, and emotionally.<sup>53</sup> Therefore, children with disabilities should benefit from this advantage and receive full-time nature-based education during preschool period. Although disability may be challenging in nature-based education, disabled children should not be deprived of nature and its benefits because of their disability.

All parents wish to meet the learning needs of their children and strive to create the best learning environment for them. Similarly, parents of children with severe disabilities state that their children can enjoy learning in an environment where appropriate goals are set and favorable stimuli are provided.<sup>54</sup> Therefore, learning environments must meet both the desire of parents and the need of children to learn. Although some parents with disabled children are religiously sensitive, they may ignore their child's need for religious education for several reasons. They spend too much time and energy on their care, treatment, and rehabilitation.

<sup>47</sup> Akyüz, "Eğitimde Çocuk Doğa ve Çevre Korunması İlişkileri", 87.

<sup>48</sup> Yahya Akyüz, "Eğitimde Çocuk Doğa ve Çevre Korunması İlişkileri", *Ankara University Journal of Faculty of Educational Sciences* 12/1 (1979), 89.

<sup>49</sup> Hasan Özalp, "Tanrı-Doğa İlişkileri Bağlamında Metafiziksel Fail Neden: İbn Sina Örneği", *Journal of Islamic Research* 24/3 (2013), 153.

<sup>50</sup> Akyüz, "Eğitimde Çocuk Doğa ve Çevre Korunması İlişkileri", 93.

<sup>51</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 53-58.

<sup>52</sup> Cordiano vd., "Nature-Based Education and Kindergarten Readiness: Nature-Based and Traditional Preschoolers are Equally Prepared for Kindergarten", 19.

<sup>53</sup> Günseli Yıldırım - Güzin Akamca, "The Effect Of Outdoor Learning Activities on the Development of Preschool Children", *South African Journal of Education* 37/2 (2017), 1.

<sup>54</sup> Patricia Sloper vd., "Every Child Matters Outcomes: What Do They Mean for Disabled Children and Young People?", *Children & Society* 23/4 (2009), 65-66.

After having a disabled child, the social environment, professional life, economic conditions, expectations, and plans of families change significantly.<sup>55</sup> Worried about their child's future, some parents may reject the child, over-emphasize or hinder the child, or not pay attention to the child's education.<sup>56</sup> For this reason, families with disabled children should be supported for the education of their children, and learning environments should be created through necessary arrangements for disabled children.

Early childhood religious education mainly involves faith education, worship education, moral education, and the teaching of the Qur'an. The curriculum of early childhood religious education consists of such topics: God, the Prophet, the Holy Book, praying, salah, fasting, sacred places, and moral values.<sup>57</sup> Nature-based learning can be linked to these themes in many ways. When teaching the Qur'an, it is possible to teach Arabic letters visually and audibly by comparing them with natural shapes and sounds. It is also beneficial for children's faith development to learn the existence and unity of God through visual, auditory, and tactile stimuli such as color, smell, taste, heat, light as well as many other natural stimuli. The richest source of stimuli that can capture a child's attention is undoubtedly nature. Starting from preschool age, children should be involved in activities that enable them to understand the diversity and relationships in nature.<sup>58</sup> Nature activities are based on the child's curiosity and help them understand the relationship between natural events.<sup>59</sup> Natural elements and their interrelationships provide unique materials for explaining the power and existence of God to the child. The curriculum states that "The children observe the blessings of Allah in nature." and "The children give examples of the blessings given by Allah."<sup>60</sup> Children can easily acquire these outcomes in nature-based learning environments. The curriculum also suggests explaining the relationship between daily life and the Holy Qur'an through examples such as fruits, animals, natural events, the moon, and the sun.<sup>61</sup> The curriculum also includes other learning outcomes aimed at protecting and loving nature and linking it to religious learning. To raise children's awareness of nature, they are encouraged to participate in environmental activities such as tree planting and environmental cleaning.<sup>62</sup> Children who have direct contact with nature develop an emotional attachment to the natural environment, and their ecological understanding also develops.<sup>63</sup> As a result, the curriculum applies to nature as both a material and a goal in the educational process. Nature-based education helps children acquire religious information, feelings, attitudes, and behaviors targeted in the curriculum. Therefore, nature-based education requires nature-based learning environments.

Nature-based learning is an approach in which nature and nature-centered activities are placed in an environment where natural elements such as plants, animals, animals, and water are used.<sup>64</sup> Two main areas need to be designed for children with disabilities in nature-based

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<sup>55</sup> Erkan Efiltili, "Examination to Rejection Behaviors of Fathers Having with Mentally Disabled Child", *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi* 40 (2016), 459.

<sup>56</sup> Gülsün Ayran - Meryem Baran, "Sağlıklı Ve Engelli Çocuk Sahibi Annelerin Çocuk Yetiştirme Tutumları Ve Disiplin Yöntemleri", *Balıkesir Sağlık Bilimleri Dergisi* 5/1 (2016), 2.

<sup>57</sup> Diyanet İşleri Başkanlığı (DİB), *4-6 Yaş Grubu Kuran Kursu Öğretim Programı*. (Ankara: DİB Eğitim Hizmetleri Genel Müdürlüğü, 2022).

<sup>58</sup> Köşker, "Okulöncesi Çocuklarında Doğa Algısı", 304.

<sup>59</sup> Gülbin Çetinkale Demirkan vd., "The study on determining environment and nature awareness of pre-school students and mentally disabled in Nigde province: Art therapy", *New Trends and Issues Proceedings on Humanities and Social Sciences* 5/1 (2018), 84.

<sup>60</sup> DİB, *4-6 Yaş Grubu Kuran Kursu Öğretim Programı*, 14.

<sup>61</sup> DİB, *4-6 Yaş Grubu Kuran Kursu Öğretim Programı*, 16.

<sup>62</sup> DİB, *4-6 Yaş Grubu Kuran Kursu Öğretim Programı*, 19.

<sup>63</sup> Colvado vd., "Experiencing nature in children's summer camps: Affective, cognitive and behavioural consequences", 41.

<sup>64</sup> Jordan - Chawla, "A Coordinated Research Agenda for Nature-Based Learning", 2.

learning environments: the playground and the learning environment. It is necessary to consider the child's need for play as well as his/her need for learning and to prepare environments suitable for both cognitive and affective development.<sup>65</sup> In nature-based education, the learning environment and the playground are not completely independent of each other, as in traditional education. They are intertwined with nature, surrounded by natural elements, and integrated with each other. How can nature-based learning environments be designed for disabled children?

Pouya proposed the following principles for the design of appropriate green spaces for children with physical disabilities: The principle of sensory stimulation, the principle of movement, the relationship among children, play, disability, and nature, playgrounds with topography, playgrounds with plants, and playgrounds with water, sand, and soil.<sup>66</sup> By taking these suggestions into consideration, the characteristics of nature-based learning environments can be revealed for children with physical disabilities.

Nature-based education refers to an environment that is entirely outdoors and surrounded by natural elements. Although similar to forest school approach, two models have different practices. A forest school is an unstructured area or forest that allows children to freely engage in activities of their choice. It is similar to nature-based education in that it is based on exploring the forest, playing games, and using nature as a material. However, it differs from nature-based education in that it occurs in a natural environment or a forest with no walls or roofs.<sup>67</sup> For this reason, forest schools are not a suitable model for the safety of children with disabilities, and nature-based education should be created for such children.

Early childhood is the most favorable period for a child to learn quickly and easily in terms of brain development. Nature-based education supports brain development and permanent learning through various stimuli and opportunities of physical activity. With a variety of stimuli in early childhood, the children create new meanings and associate them. As environmental stimuli are of great importance in early childhood, natural areas should be actively used, and even the unstructured environments of these areas should be used more.<sup>68</sup>

Since early childhood religious education includes faith education and moral education, the content consists of intangible elements. Sensory stimulation makes the content more comprehensible for children. Therefore, stimulus richness should be provided in early childhood religious education.<sup>69</sup> Religious development requires creating an environment in which the children are exposed to rich stimulants, interactions, and social-emotional experiences.<sup>70</sup> Physically disabled children need to access visual, auditory, sensory materials because of their deprivation of other stimulus-rich environments for both learning and enjoyment. However, children with disabilities cannot exercise their right to play because appropriate physical environments are not designed for them. This deprivation of children is

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<sup>65</sup> Emel Okur Berberoğlu - Selçuk Uygun, "Sınıf Dışı Eğitimin Dünyadaki ve Türkiye'deki Gelişiminin İncelenmesi", *Mersin Üniversitesi Eğitim Fakültesi Dergisi* 9/2 (2013), 37.

<sup>66</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 54-57.

<sup>67</sup> Ayşe Merve Paslı, *Doğal Çevre Kent ve Çocuk İlişkisini Yeniden Kurmak İskandinav'da Doğa Temelli Eğitim ve İsveç Orman Okulu Örneği* (İstanbul: İstanbul Şehir Üniversitesi, Yüksek Lisans Tezi, 2019), 31-32.

<sup>68</sup> Özgül Polat - Fatma Gülçin Demirci, "Erken Çocukluk Döneminde Bilişsel Gelişime Bir Uyarıcı Olarak Doğa ile Temas ve Doğa Temelli Açık Alan Etkinlikleri", *Muş Alparslan Üniversitesi Eğitim Fakültesi Dergisi* 1/2 (2021), 107.

<sup>69</sup> Saadet İder, "Erken Çocukluk Dönemi Din Eğitiminde Uyarıcı Zenginliğinin Nörobilimsel Temelleri", *Sakarya Üniversitesi İlahiyat Fakültesi Dergisi* 24/46 (2022), 553-580.

<sup>70</sup> Muhammet Mustafa Bayraktar, "The Factors Affecting Religious Development in the Context of Religious Education in Turkey", *US-China Education Review* 7/3 (2017), 175.



not due to their disability, but the lack of favorable areas for them.<sup>71</sup> Nature-based learning environments offer children various stimuli through tangible materials. Soil, sand, and gravel are natural materials with different structures that both attract the child's attention and provide tactile stimulation. After the child-developing aspect of sand and soil was discovered, it has been used as teaching materials in learning environments. Playing with sand supports the mental, social, and physical development of children, and sand has positive effects on attention, patience, new ideas, emotion control, creativity, muscle development, and bone strengthening.<sup>72</sup> Tactile materials also attract the attention of preschool children. Materials that can be shaped by water and sand greatly contribute to creativity. Such natural materials fulfill the need for sensory stimulation in religious education.

Physical disability is a condition that completely or partially limits the use of certain parts of the body. Although moving is challenging for children with disabilities, they need to move as much as other children. The balance and coordination system in children develops with physical movement which helps children understand and interact with the outside world.<sup>73</sup> Movement supports the social and physical skills of children with physical disabilities.<sup>74</sup> Montessori addresses the learning environments that allow children to move freely during the preschool period.<sup>75</sup> Nature-based outdoor activities respond to children's need for movement during early childhood.<sup>76</sup> On the other hand, lack of movement has a negative impact on learning.<sup>77</sup> Early childhood religious education requires activities that enable children to question, wonder, research, investigate, and discover the elements of nature.<sup>78</sup> It requires being in nature and in contact with nature. Education in nature or outdoor education provides an experimental and active learning environment.<sup>79</sup> Children develop positive attitudes and feelings toward plants, soil, water, and animals as they come into contact with them. As the children grow up, their desire to learn and curiosity increase and they try to discover environment.<sup>80</sup> Nature-based activities contribute to the outcomes of religious education. They also provide children with opportunities for physical movement through activities such as caring for animals and plants. Such activities provide children with both physical exercise and active learning.

Nature-based education is a play and discovery-oriented approach that provides children with free time and space to explore nature.<sup>81</sup> Games and playgrounds should be included in the educational environment of children with disabilities, and natural landscape materials should

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<sup>71</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 58.

<sup>72</sup> Azize Ummanel, "Kum ve Oyun Alanları Üzerine Bir İnceleme", *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi* 17/3 (2017), 1558.

<sup>73</sup> Helena Karabulut, "The Neuro-Building Blocks of Learning: Improving School Readiness and Overcoming Learning Difficulties", *Journal of Education and Future* 4 (2013), 6.

<sup>74</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 54.

<sup>75</sup> Maria Montessori, *The Absorbent Mind* (Chennai: Adyar Madras Theosophical Publishing House: 1949), 71.

<sup>76</sup> Polat - Demirci, "Erken Çocukluk Döneminde Bilişsel Gelişime Bir Uyarıcı Olarak Doğa ile Temas ve Doğa Temelli Açık Alan Etkinlikleri", 107.

<sup>77</sup> Mehmet Şirin Demir vd., "Çeşitli Nöro-Bilişsel & Nöro-Pedagojik Uygulama ve Modalitelerin Bilişsel Becerilerin Gelişimi Üzerindeki Etkisi", *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD)* 17/2 (2016), 686.

<sup>78</sup> DİB, 4-6 Yaş Grubu Kuran Kursu Öğretim Programı, 14.

<sup>79</sup> Zeynep Temiz - Güliz Karaaslan Semiz, "En İyi Öğretmenim Doğa: Okul Öncesinde Doğa Temelli Eğitim Uygulamaları Projesi Kapsamında Hazırlanan Öğretmen Etkinlikleri", *İnsan ve Toplum Bilimleri Araştırmaları Dergisi* 8/1 (2019), 327.

<sup>80</sup> Mustafa Tavukçuoğlu, "Okulöncesi Çocuğunun Eğitiminde Din Duygusu ve Din Eğitimi", *Necmettin Erbakan Üniversitesi İlahiyat Fakültesi Dergisi* 14/14 (2002), 54.

<sup>81</sup> Paslı, Doğal Çevre Kent ve Çocuk İlişisini Yeniden Kurmak İskandinav'da Doğa Temelli Eğitim ve İsveç Orman Okulu Örneği, 32.

be included in playgrounds.<sup>82</sup> Play is of great importance because of its contribution to the acquisition of information and emotion in religious education.<sup>83</sup> Play offers an opportunity for learning with fun, especially in the context of moral education. Values such as patience, cooperation, responsibility, and respect targeted in the curriculum of early childhood religious education may be acquired through these games, which are designed with natural elements. If educational goals are made fun, more effective and permanent learning can be provided.<sup>84</sup>

Love of God is emphasized in the curriculum of early childhood religious education, and the best material to help children understand the blessings that God gives and all beings that he creates is nature itself. The child's observation of the growth and fruiting of a tree or the development of a plant from a seed or seedling are beneficial experiences for understanding the names and attributes of Allah. To allow for these experiences, topographical arrangements must be made for children to have contact with the soil or access to the fruits on the tree. The elevation should be changed through natural hills and pits in playgrounds for children with physical disabilities, and children's access to objects should be facilitated.<sup>85</sup>

The curriculum aims to provide children with moral values such as patience, love, respect, cooperation, kindness, justice, responsibility, and truthfulness.<sup>86</sup> Care for nature teaches children patience, love, and respect. Children in schools that extensively use plants in their outdoor areas understand their responsibilities better.<sup>87</sup> They learn to assume responsibility through cooperation. Gardens are special spaces in which the child's inner life can be complemented by the outer world, where he/she can receive both encouragement and solace. Children with disabilities may feel helpless and restricted because of their disabilities. Growing, caring, and gardening plants for children with disabilities has a therapeutic effect on them.<sup>88</sup> Water has a relaxing effect on children and improves their emotional and motor skills, and games in which water and sand are used together increase the creativity of the children and contribute to socialization as it allows interaction with other children.<sup>89</sup> Therefore, water is a precious material for children to explore and play.<sup>90</sup> Therefore, grassy areas should be created to develop children's sense of freedom, allowing them the opportunity to touch, reach, and feel plants.<sup>91</sup>

According to Froebel, it is necessary to establish a relationship between children and nature at an early age.<sup>92</sup> Research on preschool education has found that 89% of children enjoy being in nature, and the reason is the presence of animals and plants in nature.<sup>93</sup> Preschool children feel happy to be in nature, love animals, and even mentally disabled children have an

<sup>82</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 55.

<sup>83</sup> bk. Kemal Aslan, "Öğretimde Eğitsel Oyunlar", *Cami Merkezli Hayat - YECDER III. Ulusal Din Görevlileri Sempozyum Tebliğleri*. (İstanbul: Yecder, 2013), 77-101.

<sup>84</sup> Nancy Frey - Douglas Fisher, "Reading and the Brain: What Early Childhood Educators Need to Know", *Early Childhood Education Journal* 38 (2010), 105.

<sup>85</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 55.

<sup>86</sup> DİB, *4-6 Yaş Grubu Kuran Kursu Öğretim Programı*, 4.

<sup>87</sup> K.L. Arbogast vd., "Vegetation and Outdoor Recess Time at Elementary Schools: What are the Connections?", *Journal of Environmental Psychology* 29/4 (2009), 450-456.

<sup>88</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 52-55.

<sup>89</sup> W Haris - N Denis, *Time Saver Standarts For Landscape Architecture* (Newyork: Mc Graw Hill: 1988), 56.

<sup>90</sup> Sinan - Yerli, "Anaokulu Bahçelerinde Dış Mekân Optimum Kullanım Olanaklarının Belirlenmesi: İstanbul Anadolu Yakasından Örnekler", 36.

<sup>91</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 55.

<sup>92</sup> Yahya Akyüz, "Eğitimde Çocuk Doğa ve Çevre Korunması İlişkileri", *Ankara University Journal of Faculty of Educational Sciences* 12/1 (1979), 89.

<sup>93</sup> Köşker, "Okulöncesi Çocuklarında Doğa Algısı", 303.

awareness of nature.<sup>94</sup> Therefore, animals are favorable elements that should be included in nature-based education. Because animals are moving creatures, they are more remarkable to children. According to Montessori, caring for animals is among the daily activities of children with disabilities. Children develop a sense of responsibility by showing love to animals and caring for them in playgrounds for disabled children.<sup>95</sup> The curriculum of preschool religious education aims to teach children responsibility through caring for animals.<sup>96</sup> Therefore, learning environments should include animals that will not harm children and allow them to have experience with animals. However, children with disabilities and others are also deprived of animals. Studies have addressed this deprivation by showing that children do not have physical contact with animals.<sup>97</sup>

Despite the contribution of natural areas to the development of children, nature-based education has some limitations. Controlling of disabled children is difficult because there is no limited learning environment or classroom. More problematic behaviors emerge among children receiving nature-based preschool education than among those receiving traditional education.<sup>98</sup> In particular, disability is a major limitation in the education of children. Behavioral problems are frequently observed in children with disabilities.<sup>99</sup> Despite the challenging behaviours of disabled children, all children have the right to learn and play in natural environments.<sup>100</sup> Thus, teachers of children with disabilities need more patience and commitment. They should respect the personal value and uniqueness of their disabled students and help them discover the world and people.<sup>101</sup> They should also provide opportunities that enable disabled children to learn effectively. As Dewey stated, the primary responsibility of educators is to know how to use physical and social environments to create important experiences.<sup>102</sup> Nature-based learning environments eliminate the limitations of disabled children and help them to benefit from nature. Children with disabilities should benefit more from opportunities to learn in nature because they are deprived of many rights.

## Conclusion

Nature-based education contributes to the cognitive, affective, and psychomotor development of preschool children. Educational practices that consider nature as a reference have increased in our country. However, preschool religious education was formalized a few years ago and has been carried out in a traditional way. Preschool religious educators are unaware of alternative approaches. Nature-based learning approach is in accordance with both the content of religious education and the development of preschool children. Therefore, this

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<sup>94</sup> Çetinkale Demirkan vd., "The Study on Determining Environment and Nature Awareness of Pre-School Students and Mentally Disabled in Nigde Province: Art Therapy", 85.

<sup>95</sup> Pouya vd., "Doğa ile Uyumlu Fiziksel Engelli Çocuk Oyun Alanları", 57.

<sup>96</sup> DİB, *4-6 Yaş Grubu Kuran Kursu Öğretim Programı*, 22.

<sup>97</sup> Katharina Ameli, "Where is Nature? Where is Nature in Nature and Outdoor Learning in Higher Education? An Analysis of Nature-Based Learning in Higher Education Using Multispecies Ethnography", *Journal of Teacher Education for Sustainability* 24/2 (2022), 114.

<sup>98</sup> Cordiano vd., "Nature-Based Education and Kindergarten Readiness: Nature-Based and Traditional Preschoolers are Equally Prepared for Kindergarten", 32-33.

<sup>99</sup> Lisa Woolfson, "Family Well-Being and Disabled Children: A Psychosocial Model of Disability-Related Child Behaviour Problems", *British Journal of Health Psychology* 9 (2004), 2.

<sup>100</sup> Cordiano vd., "Nature-Based Education and Kindergarten Readiness: Nature-Based and Traditional Preschoolers are Equally Prepared for Kindergarten", 32-33.

<sup>101</sup> Urszula Klajmon-Lech, "The Idea of Subjectivity and Dialogue in the Education of a Disabled Child", *Освітологічний дискурс* 1/2 (2018), 62.

<sup>102</sup> John Dewey, *Tecrübe ve Eđitim* (Ankara: 1966), 28.

study highlights nature-based learning in early childhood religious education and reveals how such environments should be designed for children with disabilities.

Disabled children remain a neglected group, although some improvements have been made in the religious education for disadvantaged groups. This study proposes nature-based education for children with disabilities. Although nature is seen as a challenging learning environment for disabled children, the contribution of nature to their development makes it beneficial for children with disabilities. Considering the limitations in the lives of children with disabilities, the right to religious education should not be limited, and their need to learn about religion should be met enough to satisfy them.

Nature-based education is especially suitable for early childhood and offers rich learning environment to meet the developmental needs of children with disabilities. The educational and entertaining function of nature and natural elements require using it in religious education of disabled children. For this reason, this study proposed to create natural learning environments for children with disabilities in early childhood religious education. It revealed that nature-based education is suitable for the goals of early childhood religious education, and learning environments should be structured with natural elements for disabled children. Due to the climatic conditions in Turkey, a summer school is proposed for nature-based education. A nature-based learning environment will be an innovation for children with disabilities in religious education. Considering that this study will serve as a scientific reference for nature-based learning environments for children with disabilities, it is recommended that comprehensive studies be conducted in the discipline of religious education on matters, such as nature-based faith education, nature-based methods of Quran teaching, and nature-based worship education.

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