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“The Impact of Outdoor Activities on Children’s Mental Health and Academic Performance”

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Abstract
This study investigates the impact of outdoor learning activities on children's mental health and academic performance. A descriptive analytical study was conducted with questionnaire among the respondents 100 of teachers from some Saudi schools. The research highlights the positive effects of outdoor activities on children's mental health, including reduced stress levels, improved emotional well-being, and enhanced overall life satisfaction. Additionally, the study demonstrates the significant impact of outdoor learning activities on children's academic performance, fostering engagement, motivation, and learning outcomes across various subject areas. Overall, this study underscores the transformative potential of outdoor learning activities in promoting children's holistic development, supporting their mental health and academic success, and fostering a lifelong connection to the natural world.
Keywords: Outdoor Activities, Children, Education, Mental Health, Academic

Performance, Learning.

الملخص
تبحث هذه الدراسة في تأثير أنشطة التعلم في الهواء الطلق على الصحة العقلية للأطفال والأداء الأكاديمي. أجريت دراسة وصفية تحليلية باستخدام الاستبيان على عينة من ١٠٠ معلم من بعض المدارس السعودية. يسلط البحث الضوء على الآثار الإيجابية للأنشطة الخارجية على الصحة العقلية للأطفال، بما في ذلك انخفاض مستويات التوتر، وتحسين الرفاهية العاطفية، وتعزيز الرضا عن الحياة بشكل عام. بالإضافة إلى ذلك، توضح الدراسة التأثير الكبير لأنشطة التعلم في الهواء الطلق على الأداء الأكاديمي للأطفال، وتعزيز المشاركة والتحفيز ونتائج التعلم في مختلف المجالات الدراسية. بشكل عام، تؤكد هذه الدراسة على الإمكانات التحويلية لأنشطة التعلم في الهواء الطلق في تعزيز التنمية الشاملة للأطفال، ودعم صحتهم العقلية ونجاحهم الأكاديمي، وتعزيز الاتصال مدى الحياة بالعالم الطبيعي.
الكلمات المفتاحية: الأنشطة الخارجية، الأطفال، التعليم، الصحة النفسية، الأداء الأكاديمي، التعلم.

Introduction

The current prevalence of sedentary lifestyles among children in society has reached concerning proportions, mostly due to the widespread influence of digital screens and electronic devices. Due to the proliferation of smartphones, tablets, laptops, and video games, children are devoting more of their time to indoor activities, resulting in a decline in physical exercise and outdoor exploration (Dresp-Langley, 2020). The transition towards a more inactive way of life has sparked worries among parents, educators, and health experts regarding its negative impact on the well-being and growth of children.

Beyond the confines of the traditional classroom, innovative learning strategies have garnered increasing attention in modern society due to the changing educational environment. Outdoor learning activities have gained significant attention as they provide children with exceptional opportunities to interact with the natural environment while also attaining academic knowledge and skills. This transition signifies an acknowledgment of the diverse advantages that can be derived from outdoor activities, encompassing not only scholastic progress but also the promotion of comprehensive child development, encompassing psychological health and overall welfare.

Regrettably, learning exclusively occurs within the confines of a building, with a narrow emphasis on textbooks and examinations. Inadvertently, children are expected to attentively heed and assimilate instructions from their teacher in a theoretical manner, although lacking the cognitive capacity to contemplate the world in an abstract manner at their age. They require specific instances of the concepts being taught through tangible activities. Education within the confines of a classroom can sometimes become monotonous, uninteresting, and difficult to comprehend. Meanwhile, children require engaging, pleasurable, imaginative, demanding, and daring methods of education that can facilitate experiential learning and enhance their inquisitiveness.

Nevertheless, the process of acquiring knowledge can occur in any location, including outdoor environments. Many schools have implemented the concept of outdoor learning in response to this predicament (Gilbertson et al., 2022). The primary objective is to transform a conventional educational system into a dynamic and inventive learning environment that integrates both academic and practical components. The concept of outdoor learning allows students to acquire knowledge in an outdoor environment. It offers children the opportunity to explore the world beyond their immediate surroundings and engage in meaningful learning experiences in real-life settings. They learn by actively participating in activities, encountering new things, and making discoveries.

Education should be imparted in the natural world, according to the philosophy of Aristotle and Plato. Subsequent to that period, numerous philosophers and scientists (such as Rousseau, Locke, Schelling, Froebel, Basedow, and Pestalozzi) have underscored the importance of providing children with regular opportunities to engage in natural environments. Constant exposure to natural environments and proximity to them improve the concentration and cognitive abilities of children (Yıldırım & Akamca, 2017).

Outdoor activities comprise a wide range of experiences, including both spontaneous play in natural settings and structured sports and recreational activities. These activities provide youngsters with chances to engage in physical mobility, exploration, and sensory stimulation, all of which are essential for their overall development. By engaging with the natural world, children develop a strong feeling of curiosity, awe, and connection, which promotes their emotional resilience and psychological well-being.

The importance of engaging in outdoor activities to combat the adverse effects of a sedentary lifestyle has garnered much attention. Studies (Jackson et al., 2021; Mackenzie et al., 2018; Bento & Dias, 2017) suggest that consistent participation in outdoor activities is crucial for enhancing physical fitness, mental wellness, and holistic growth in children. Through immersing themselves in natural habitats, children are able to participate in unstructured play, engage in physical activity, and enjoy sensory experiences that are essential for their overall development.

The numerous advantages that individuals gain from spending time in natural outdoor environments are extensively established and encompass enhanced physical health, mental health and well-being, as well as increased creativity (Brymer et al., 2019; White et al., 2019). Increasing evidence suggests that spending time outdoors (Fyfe-Johnson et al., 2021) has numerous benefits for child development, including positive impacts on physical and mental health. Additionally, there are indications that outdoor activities can enhance children's cognitive abilities, academic achievement, and physical activity levels (Mann et al., 2021).

Problem Statement

The current trend in education towards emphasizing holistic child development signifies an understanding of the complex and varied aspects of learning and development. Educators and policymakers are placing a greater emphasis on the mental health and well-being of children as essential elements of their educational trajectory, surpassing ordinary academic achievement. Nevertheless, conventional classroom-centered methodologies frequently restrict knowledge acquisition to the confines of a four-walled structure, neglecting the potential advantages that outdoor settings can provide in fostering the holistic growth of youngsters. Although nature-based education has received considerable recognition for its capacity to enhance learning experiences, there is still a substantial knowledge vacuum regarding the precise effects of outdoor learning activities on the academic performance and mental well-being of children.

Despite the well-recognized benefits that outdoor activities have on children's academic performance and mental health, modern lives increasingly confine children to indoor environments characterized by sedentary behavior and excessive use of electronic gadgets. Considerable apprehension arises regarding the potential adverse effects that this trend may have on the well-being and academic achievements of children. Children who are deprived of outdoor experiences may develop attention deficits, anxiety, and tension, in addition to having fewer chances to engage in physical activity.

Moreover, these challenges may be exacerbated by the modern society's emphasis on structured activities and academic pressures, which may leave little time for exploration in natural settings. Consequently, children might forego the manifold advantages that are intrinsic to engaging in outdoor pursuits, such as the alleviation of tension, the regulation of emotions, and the advancement of cognitive abilities.

Investigating the connection between outdoor activities, children's mental health, and academic achievement is urgently needed to address these challenges. Together, teachers, and parents can fight for children to spend more time outside by understanding how outdoor experiences affect their holistic development and working to include these experiences into kids' daily routines and school programs.

Objectives of the Study

1. To examine the impact of outdoor activities on children's mental health.
2. To investigate the impact of outdoor activities on children's academic performance.
3. To explore the perceived benefits and barriers associated with outdoor experiences.
4. To develop recommendations for integrating outdoor experiences into children's daily routines and educational settings.

Significance of Study

This research holds immense significance since it covers multiple aspects that are essential for the welfare and growth of children in today's society. The study primarily focuses on a significant issue concerning the psychological mental health of children, which has gained more attention in recent times. In light of the increasing prevalence of stress, anxiety, and depression among young people, it is crucial to comprehend the possible advantages of engaging in outdoor activities. This research examines the impact of connecting with nature and engaging in outdoor play on mental health outcomes. The findings provide valuable information that can guide efforts to avoid and address emotional challenges and enhance the well-being and emotional strength of children.

Moreover, this study's implications for educational policies and practices contribute to its overall significance. Academic achievement is contingent not only upon cognitive prowess, but also upon emotional self-control, interpersonal aptitudes, and physical well-being. By examining the correlation between engagement in outdoor activities and scholastic achievement, this study has the potential to furnish educators and policymakers with significant support. The integration of outdoor experiences into educational environments has the potential to enhance student engagement, cultivate innovation, and enrich the learning environment, thereby contributing to improved educational outcomes as a whole.

Definition of Key terms

Outdoor Activities: Outdoor educational experiences, such as nature walks, field trips, outdoor classrooms, and environmental discovery, are designed to improve learning outcomes and foster comprehensive child development (Gruno & Gibbons, 2022).

Mental Health: A person is considered to be in a state of well-being when they are self-aware, resilient, capable of handling the stresses of daily life, productive at work, and able to make a positive impact on their community (Galderisi et al., 2017).

Academic Performance: The degree to which a student achieves or surpasses scholastic benchmarks across a range of subjects or courses (Banai & Perin, 2016). It comprises metrics such as academic performance evaluations, examination results, student engagement in class, and task fulfillment.

Literature Review

1. Overview of Outdoor Learning Activities in Education

Incorporating outdoor learning activities into educational settings signifies a fundamental change towards more hands-on and immersive methods of learning. Outdoor learning activities refer to a wide range of educational experiences that take place in natural environments. These activities can include nature walks, field trips, outdoor classrooms, and hands-on investigation of the environment (Lavie Alon & Tal, 2017). These activities are created to utilize the natural abundance of outdoor surroundings to improve learning results and encourage comprehensive child development.

The main goal of outdoor learning activities is to offer children the chance to directly interact with the natural environment. Through the immersion of pupils in outdoor situations, educators want to stimulate their sensory perception, ignite their inquisitiveness, and cultivate a more profound bond with the natural world (Link, 2018). Nature-based experiences provide a comprehensive learning environment that stimulates students' senses and encourages them to actively explore, observe, and uncover knowledge. These experiences offer a concrete framework for comprehending abstract concepts in different fields of study.

Moreover, outdoor learning activities provide distinct chances for interdisciplinary learning and integration across several academic areas. Through the examination of natural ecosystems, students can establish links between science, mathematics, language arts, and social studies, cultivating a comprehensive comprehension of the interdependence of the natural world. Outdoor settings offer an abundant backdrop for investigating cultural, historical, and environmental matters, fostering students' development of a wider outlook and admiration for the surrounding world (Clark, 2023).

According to (Richmond et al., 2018), outdoor learning activities facilitate dynamic and hands-on methods of learning that supplement conventional classroom teaching. Instead than being passive recipients of knowledge, students engage actively in

their learning process by directly experiencing and conducting studies based on inquiry. Outdoor spaces function as authentic labs where students can employ academic information in practical situations, promoting the development of critical thinking, problem-solving abilities, and creativity.

2. Factors Influencing Participation in Outdoor Learning Activities

Various factors impact the level of involvement in outdoor educational activities, including personal traits, institutional issues, and wider cultural impacts. According to (Elliott, 2020), an essential determinant is the pupils' inherent drive and enthusiasm for outdoor activities. Students with an innate inquisitiveness towards the environment, a fondness for outdoor exploration, and a preference for practical learning experiences are more inclined to actively engage in outdoor learning activities. A person's positive sentiments toward nature and their immediate environment, as well as their interests, experiences, and personal preferences, are typical sources of intrinsic motivation. Teachers can utilize students' innate drive by creating outdoor activities that match their preferences, integrate significant encounters, and offer options for independence and self-governance, thus amplifying their involvement and participation.

According to (Molner, 2022), the attitudes and support of parents have a substantial impact on pupils' involvement in outdoor educational activities. Parents who prioritize nature-based education, acknowledge the advantages of outdoor experiences for their children's growth, and actively promote outside exploration are more inclined to endorse and enable their children's engagement in outdoor activities. On the other hand, parents who see outdoor activities as unimportant or unrelated to academic success may be less likely to promote outdoor learning opportunities. Hence, it is crucial to foster parental knowledge, engagement, and support for outdoor education efforts in order to encourage students' involvement in outdoor learning activities.

Moreover, the presence of institutional elements in educational settings has an impact on the level of engagement in outdoor learning activities. School policies, curriculum frameworks, and funding allocation choices all impact students' access to and participation in outdoor learning opportunities. Schools that give priority to outdoor education, devote resources for outside facilities and equipment, and offer professional development opportunities for instructors in outdoor pedagogy are more likely to deliver comprehensive outdoor learning programs (Ayaga & Okaya, 2020). On the other hand, schools that have limited funds, limited time, and other important tasks to focus on may find it difficult to successfully include outdoor activities into their educational program. Hence, it is crucial to cultivate a nurturing school environment, champion outdoor education projects, and offer institutional backing to encourage students' engagement in outdoor learning activities.

Moreover, wider societal factors, such as cultural conventions, environmental mindsets, and community assets, affect the level of engagement in outdoor educational experiences. Attitudes of society towards nature and outdoor surroundings varies across various cultures and societies, impacting how outdoor activities are perceived and their educational significance. Communities that have access to natural resources, outdoor spaces, and environmental organizations are more likely to have greater possibilities for outdoor learning experiences (Gilbertson et al., 2022). Conversely, urban regions with limited green spaces may have obstacles when it comes to participating in outdoor activities. Hence, it is crucial to tackle inequalities in the availability of outdoor resources, raise environmental consciousness, and cultivate collaborations with community organizations in order to broaden the access to outdoor educational opportunities for every student.

3. Benefits of Outdoor Learning for Children

A multitude of advantages are associated with outdoor education for children. Engaging in outdoor learning promotes physical, mental, and social well-being among kids. Several studies have demonstrated that outdoor learning is associated with an increase in physical activity outside of school settings. Dineen (2018) has demonstrated that exposure to natural environments can reduce the symptoms associated with ADHD. Outdoor education and exposure to natural environments also reduce stress levels among both students and teachers.

Children experience significant developmental advantages from spending time outside. Engaging in outdoor education and play facilitates the advancement of emotional, behavioral, and intellectual growth. Molyneux et al. (2023) have indicated that kids who engage in outdoor learning cultivate various beneficial qualities including self-awareness, autonomy, assurance, ingenuity, critical thinking abilities, compassion for others, physical dexterity, self-control, and being proactive.

According to (Nair, 2019), outdoor education fosters a connection between families, the community, and the school. Outdoor classrooms offer organic opportunities for families and community members to engage in student learning. The connections forged via outdoor education foster increased parental and community engagement in and endorsement of the school.

Outdoor learning promotes teamwork, communication, and social skills as students engage with their classmates in natural environments. Engaging in outdoor play fosters cooperation, teamwork, and conflict resolution among children as they participate in imaginative play, construct forts, or embark on joint outdoor expeditions.

Awodun & Boris (2020) has recorded enhanced academic achievement as a result of outdoor learning. Kuo et al. (2019) have documented that learning in and about nature leads to higher standardized test scores, greater attitudes towards school, better in-school behavior, increased attendance, and overall enhanced student accomplishment. Furthermore, outdoor education efficiently utilizes a wider spectrum of children's cognitive abilities.

Outdoor learning enhances children's mental health and well-being by offering chances for stress reduction, relaxation, and emotional regulation. Kondo et al. (2018) have shown that spending time in natural areas can reduce stress, anxiety, and depression in children. This is because being exposed to green places fosters a sense of relaxation and tranquility. Engaging in outdoor play and exploration provides opportunities for children to express their creativity, imagination, and self-expression.

This allows them to effectively process their emotions, freely express themselves, and cultivate a positive self-image. Additionally, outdoor surroundings offer an ideal backdrop for engaging in mindfulness activities, such as exploring nature, practicing meditation, and engaging in introspection. These practices help enhance emotional strength and self-understanding.

4. Barriers to Implementing Outdoor Learning in Education

The implementation of outdoor learning in school is hindered by multiple constraints, which prevent its widespread adoption despite its great advantages. According to (Shume & Blatt, 2019), an important obstacle is the perceived logistical difficulties linked to outdoor activities. Education professionals and school officials may face challenges when it comes to arranging and coordinating outdoor educational activities, such as managing transportation logistics, ensuring safety, and addressing weather-related issues. The issues are worsened, especially for urban schools with limited outdoor resources, due to the absence of access to appropriate outdoor locations, such as parks, natural areas, or outdoor classrooms. Moreover, apprehensions over legal responsibility and the mitigation of potential hazards could dissuade educational institutions from integrating outdoor activities into their academic programs, resulting in a hesitancy to adopt nature-centered education.

Moreover, educational institutions face institutional obstacles that impede the incorporation of outdoor learning. Conventional educational models give priority to standardized assessments, academic success, and adherence to the curriculum. Teachers may encounter pressure to adhere to a pre-established curriculum within tight time limits, allowing limited opportunities for outdoor exploration and practical learning. Furthermore, the absence of adequate professional development and training opportunities for instructors in outdoor education methodology can lead to a deficiency in confidence and expertise when it comes to enabling outdoor learning activities, hence hindering its implementation (Glackin, 2016).

Tanik Onal & Ezberci Cevik (2022), added that financial limitations and budgetary restrictions could present obstacles to the investment in apparatus, resources, and infrastructure for outdoor learning. Regulatory obstacles pertaining to environmental regulations, health and safety standards, and liability concerns may further complicate the integration of outdoor activities into educational environments.

Previous Studies

According to (Gustafsson et al., 2012) the purpose of this research was to determine how an outdoor educational intervention affected the mental health of students. There were two participating elementary schools (N = 230): one experimental school that executed the intervention, and the other serving as a reference school. The parents responded to demographic inquiries and the Strengths and Difficulties Questionnaire. At the experimental school, an outdoor educational intervention was executed, and data collection was subsequently resumed one year later. Taking demographics into account, the results indicate a marginal but insignificant improvement in mental health at the experimental school. Nevertheless, this impact was considerably influenced by gender: in general, males achieved superior outcomes compared to girls at the intervention school in comparison to the reference school. In light of the findings, it may be crucial to consider gender issues during the implementation of educational programs in schools.

To the study of (Wang et al., 2023) looked at the correlations between screen time and outdoor time, two measures of free time usage among rural Chinese adolescents, and their psychological well-being and academic achievement. Data for this study came from a battery of surveys administered to a large random sample of 20,375 junior high school students in rural Ningxia (mean age= 13.22), including a demographic survey to gauge free time allocation, a mental health assessment called the Strengths and Difficulties Questionnaire, and a standardized math test to gauge academic performance. After taking into account demographic and familial variables, we tested the hypothesis that adolescents' free time allocation was associated with positive or negative outcomes using a multivariate ordinary least squares regression model. Each participant in our study spent around one hour in front of a screen and outdoors. Similar percentages of teenagers (11%) and those who reported behavioral issues (10%) also reported atypical prosocial activities. Teens whose screen time exceeded 2 hours had a 3percentage point increased likelihood of experiencing behavioral difficulties ($p<0.001$), suggesting that mental health was negatively impacted by excessive screen time. At the same time, spending time outdoors was linked to improved mental health, and positive correlations were noted for all levels of outdoor time (compared to not spending any time outdoors, reducing the likelihood of increasing behavioral difficulties by 3 to 4 percentage points and of decreasing prosocial scores by 6 to 8 percentage points; all p's<0.001). There were no significant relationships between outdoor time and academic performance, although standardized math scores were favorably correlated with average daily screen durations of up to 1 hour and 1-2 hours, respectively (0.08 SD, $p<0.001$; 0.07 SD, $p<0.01$, respectively), when it came to academic performance. This study used a large sample size to investigate how adolescents in rural China spend their leisure time and how it relates to their mental health and academic performance. The results provide some important information for improving the quality of life for these young people.

According to (Görkem & Gümüş, 2020) the primary objective of this research is to ascertain the impact on students' academic performance and memorization capacity of social studies lessons that incorporate outdoor education-based activities. Using a pretest-posttest control group, the research followed a semi-experimental design. The study's study group was decided upon by carefully choosing a representative sample. The research group for the 2018-2019 school year included two sets of fourth graders from different schools in the Buca district of İzmir province: one set from a public school (n=33) and one set from a control group (n=31). The fourth-grade social studies lesson "People, Places and Environments" learning area contents were covered for six weeks in the control group using outdoor education activities and the outdoor teaching technique. The researcher used the "Academic Achievement Test" she developed for use with fourth graders in elementary school to gauge progress both before and after the intervention in the "People, Places and circles" subject area. Furthermore, students' degree of information recall four weeks after applications were finished was measured using the Academic Achievement Test as a persistence test.

Descriptive statistics, a t-test for unrelated samples, and a two-factor analysis of variance (ANOVA) for combined measurements were used to solve the data statistically. Students in the experimental group who participated in outdoor education activities and social studies classes had much greater rates of academic success and retention compared to students in the control group who followed the classroom-based social studies curriculum and activities. The results showed that students' success rates and memorization of course material were both improved when social studies classes included outdoor learning activities.

To the study of (Jackson et al., 2021) as a result of COVID-19, people's relationships with nature are changing, which might have serious effects on people's health. We used a Qualtrics XM panel to conduct a nationally representative survey of youth ages 10–18 across the US (n = 624) from 30 April 2020 to 15 June 2020. Our goal was to determine how COVID-19 affected teens' participation in outdoor recreation and subjective well-being, and how engaging in outdoor activities could counteract declines in subjective well-being. Before and during the epidemic, survey questions centered on how often people participated in outdoor activities and how their subjective well-being changed. Subjective well-being (52% reported declines) and outdoor recreation engagement (64% reported declines) were both shown to be lower in paired t-tests. A regression model that looked at the factors that affect changes in subjective well-being (R2 = 0.42) found that there were strong correlations with changes in outdoor play (B = 0.44, $p < 0.001$) and activities that involve nature (B = 0.21, p = 0.016). Teens' subjective well-being declined less among those who engaged in these activities during the epidemic, regardless of their background. The findings emphasize the need of providing teenagers with chances for outdoor recreation during emergencies, as well as the vital role that spending time in nature has in enhancing their resistance to stresses like the COVID-19 epidemic.

Methodology

1. Research Design

This study relied on the descriptive analytical approach, as this approach aims to describe the phenomenon, study it on the ground, and obtain data from its primary sources. The descriptive analytical approach means “one of the scientific methods for describing the subject to be studied through a correct scientific methodology and depicting the results that are reached in the form of expressive digital information that can be interpreted” (Connaway & Radford, 2021).

2. Research Method

According to Opoku et al. (2016), researchers use a study method to investigate their research questions and objectives by utilizing a predetermined strategy to collect, analyze, and interpret data. Many distinct research strategies exist, each one optimized for a certain set of questions or categories of information. In quantitative research, numerical data is gathered by means of preplanned questionnaires, experiments, or observations. Statistical analysis, testing of hypotheses, and the quantification of associations between variables are all made possible by these techniques (Mohajan, 2020). However, qualitative methods provide in-depth understandings of complex events and human experiences by emphasizing the collection of non-numerical data through methods such as interviews, focus groups, or content analysis. The researcher used a quantitative approach since it was appropriate for the study's goals and objectives.

3. Study Population

The study population refers to the entire group or collection of individuals that share common characteristics or attributes and are of interest to the researcher for a specific study (Sileyew, 2019). It is a fundamental concept in designing and conducting research as it defines the scope and boundaries of the investigation. The study population is central to determining which individuals or units will be the focus of data collection and analysis. The study population included 100 teachers from some Saudi schools.

4. Data Collection

Data collection is a fundamental component of research methodology, essential for gathering information and evidence to support the research objectives (Igwenagu, 2016). It involves the systematic process of obtaining, recording, and analyzing data from various sources and methods to address specific research questions. The primary purpose of data collection is to generate empirical evidence that can be used to draw meaningful conclusions and insights. In order to achieve the objectives of the study; all data and information were based on two types of sources:

4.1. Primary Sources

Primary sources are foundational elements of data collection that provide original, firsthand information or evidence directly related to the research topic. These sources are essential as they offer data that has not been interpreted, summarized, or filtered through the lens of previous researchers or intermediaries (Pandey & Pandey, 2021). To achieve the objectives of the study, study data were collected by distributing a questionnaire to the study population to measure the Impact of outdoor activities on children’s mental health and academic performance.

4.2. Secondary Sources

Secondary sources comprise essential references and materials that furnish pre-existing data, knowledge, or information that has been gathered, examined, and recorded by an individual other than the researcher. These sources provide researchers with crucial support for their studies and investigations by offering pre-existing data or insights, frequently in the form of reports

or published literature (Igwenagu, 2016). The information was gathered from a variety of secondary sources, including published books and articles.

5. Data Analysis

The term "data analysis" is used to describe the methodical and structured procedure of examining, cleaning, manipulating, and analyzing data acquired for the purpose of drawing conclusions, answering research questions, or putting hypotheses to the test. At this stage, researchers use a variety of statistical and computational methods to interpret the collected data (Davidavičienė, 2018). The researcher used the Statistical Package for the Social Sciences (SPSS) to process the study data.

Results

1. Demographic Questions

- Gender

It is clear from the following table on the distribution of the study sample by gender that the proportion of males is 75 %, and females 25%.

Table 1: Gender

Gender				
		Frequency	Percent	Valid Percent
Valid	Male	75	75.0	75.0
	Female	25	25.0	25.0
	Total	100	100.0	100.0

- Nationality

It is clear from the following table on the distribution of the study sample by Nationality that the proportion of Saudi is 64 %, and non-Saudi 36%.

Table 2: Nationality

Nationality				
		Frequency	Percent	Valid Percent
Valid	Saudi	64	64.0	64.0
	Non- Saudi	36	36.0	36.0
	Total	100	100.0	100.0

- Do you feel that outdoor learning activities help children learn better?

It is clear from the following table that most of the study sample feel that outdoor learning activities help children learn better, with a percentage of 73%.

Table 3: Do you feel that outdoor learning activities help children learn better?

Do you feel that outdoor learning activities help children learn better?				
		Frequency	Percent	Valid Percent
Valid	Yes	73	73	73
	No	27	27	27
	Total	100	100.0	100.0

2. The Benefits of Outdoor Learning for Children

- Statement “Outdoor activities instill in children a sense of environmental stewardship and appreciation for nature” came in the first place with an arithmetic mean of 4.22 and a standard deviation of .675. Therefore, the direction of the responses of the study sample is Agree.

- Statement “Outdoor activities help children develop problem-solving skills” came in the second order, with a mean of 4.21 and a standard deviation of .832. Therefore, the direction of the responses of the study sample is Agree.
- Statement “Engaging in outdoor learning enhances children's concentration and focus” came in the third order, with an arithmetic “mean of 4.15 and a standard deviation of .687. Therefore, the direction of the responses of the study sample is Agree.
- Statement “Outdoor learning fosters social skills and encourages collaboration among children” in the fourth rank came with an arithmetic mean of 3.89 and a standard deviation of .751. Therefore, the direction of the responses of the study sample is neutral.
- Statement “Outdoor experiences foster creativity and imagination in children” came in the fifth order, and its arithmetic mean was 3.87 and a standard deviation was .812. Therefore, the direction of the responses of the study sample is neutral.

It was apparent from the table that the information held by teachers regarding the benefits of outdoor learning activities for children encompassed a variety of subject areas, the most significant of which were the outdoor activities instill in children a sense of environmental stewardship and appreciation for nature, and help children develop problem-solving skills.

Table 4: **Descriptive Statistics of Benefits of Outdoor Learning for Children**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Outdoor experiences foster creativity and imagination in children.	100	3	5	3.87	.812
Engaging in outdoor learning enhances children's concentration and focus.	100	3	5	4.15	.687
Outdoor activities help children develop problem-solving skills.	100	2	5	4.21	.832
Outdoor learning fosters social skills and encourages collaboration among children.	100	3	5	3.89	.751
Outdoor activities instill in children a sense of environmental stewardship and appreciation for nature.	100	3	5	4.22	.675
Benefits of Outdoor Learning for Children	100	3.00	4.60	4.0680	.36979
Valid N (listwise)	100				

Table 5: Frequency &Percent of Benefits of Outdoor Learning for Children

S	Strongly disagree		not agree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
Outdoor experiences foster creativity and imagination in children.	-	-	-	-	40	40%	33	33%	27	27%
Engaging in outdoor learning enhances children's	-	-	-	-	17	17%	51	51%	32	32%

concentration and focus.										
Outdoor activities help children develop problem-solving skills.	-	-	2	2%	20	20%	33	33%	45	45%
Outdoor learning fosters social skills and encourages collaboration among children.	-	-	-	-	34	34%	43	43%	23	23%
Outdoor activities instill in children a sense of environmental stewardship and appreciation for nature.	-	-	-	-	14	14%	50	50%	36	36%

3. Barriers to Implementing Outdoor Learning in Education

- Statement "Weather conditions, such as extreme heat, cold, or inclement weather, pose challenges to conducting outdoor activities consistently" came in the first place with an arithmetic mean of 4.21 and a standard deviation of .902. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Curriculum constraints and standardized testing requirements limit opportunities for integrating outdoor learning into the academic curriculum" came in the second order, with a mean of 4.13 and a standard deviation of .884. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Lack of training and support for educators in implementing outdoor learning activities hinders their adoption and effectiveness" came in the third order, with an arithmetic mean of 4.13 and a standard deviation of .812. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Limited outdoor space and access to suitable outdoor environments hinder the implementation of outdoor learning activities" in the fourth rank came with an arithmetic mean of 4.09 and a standard deviation of .818. Therefore, the direction of the responses of the study sample is neutral.
- Statement "Lack of resources, including funding for outdoor equipment and materials, impedes the implementation of outdoor learning initiatives" came in the fifth order, and its arithmetic mean was 4.00 and a standard deviation was .888. Therefore, the direction of the responses of the study sample is neutral.

It was apparent from the table that the barriers to implementing outdoor learning activities in education related to a variety of different subjects, including weather conditions which pose challenges to conducting outdoor activities consistently, and curriculum constraints and standardized testing requirements limit opportunities for integrating outdoor learning into the academic curriculum.

Table 6: Descriptive Statistics of Barriers to Implementing Outdoor Learning in Education

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Weather conditions, such as extreme heat, cold, or inclement weather, pose challenges to conducting outdoor activities consistently.	100	2	5	4.21	.902
Lack of resources, including funding for outdoor equipment and materials, impedes the implementation of outdoor learning initiatives.	100	1	5	4.00	.888

Limited outdoor space and access to suitable outdoor environments hinder the implementation of outdoor learning activities.	100	3	5	4.09	.818
Lack of training and support for educators in implementing outdoor learning activities hinders their adoption and effectiveness.	100	3	5	4.13	.812
Curriculum constraints and standardized testing requirements limit opportunities for integrating outdoor learning into the academic curriculum.	100	2	5	4.13	.884
Barriers to Implementing Outdoor Learning in Education	100	3.00	5.00	4.1120	.48017
Valid N (listwise)	100				

Table 7: Frequency &Percent of Barriers to Implementing Outdoor Learning in Education

S	Strongly disagree		not agree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
Weather conditions, such as extreme heat, cold, or inclement weather, pose challenges to conducting outdoor activities consistently.	-	-	3	3%	23	23%	24	24%	50	50%
Lack of resources, including funding for outdoor equipment and materials, impedes the implementation of outdoor learning initiatives.	2	2%	2	2%	21	21%	44	44%	31	31%
Limited outdoor space and access to suitable outdoor environments hinder the implementation of outdoor	-	-	-	-	29	29%	33	33%	38	38%

learning activities.										
Lack of training and support for educators in implementing outdoor learning activities hinders their adoption and effectiveness.	-	-	-	-	27	27%	33	33%	40	40%
Curriculum constraints and standardized testing requirements limit opportunities for integrating outdoor learning into the academic curriculum.	-	-	3	3%	24	24%	30	30%	43	43%

4. The Impact of Outdoor Activities on Children's Mental Health

- Statement "Exposure to natural environments during outdoor learning activities promotes a sense of connection to the natural world, which positively impacts children's mental health" came in the first place with an arithmetic mean of 4.24 and a standard deviation of .712. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Spending time outdoors enhances children's mood and promotes feelings of happiness and joy" came in the second place with an arithmetic mean of 4.12 and a standard deviation of .844. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Outdoor experiences in natural environments reduce stress and anxiety levels among children" came in the third order, with a mean of 4.09 and a standard deviation of .911. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Outdoor exploration and play contribute to the development of children's social-emotional skills, such as empathy and cooperation" came in the fourth order, with an arithmetic mean of 4.07 and a standard deviation of .820. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Outdoor learning activities provide children with opportunities for relaxation and rejuvenation of mental resources" in the fifth rank came with an arithmetic mean of 3.95 and a standard deviation of .880. Therefore, the direction of the responses of the study sample is neutral.

It was clear from the table that the impact of outdoor activities on children's mental health covered a variety of subjects. It was also clear that exposure to natural environments during outdoor learning activities promotes a sense of connection to the natural world, which positively impacts children's mental health and spending time outdoors enhances children's mood and promotes feelings of happiness and joy.

Table 8: Descriptive Statistics of Impact of Outdoor Activities on Children's Mental Health

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Outdoor experiences in natural environments reduce stress and anxiety levels among children.	100	2	5	4.09	.911
Outdoor learning activities provide children with	100	2	5	3.95	.880

opportunities for relaxation and rejuvenation of mental resources.					
Outdoor exploration and play contribute to the development of children's social-emotional skills, such as empathy and cooperation.	100	2	5	4.07	.820
Spending time outdoors enhances children's mood and promotes feelings of happiness and joy.	100	3	5	4.12	.844
Exposure to natural environments during outdoor learning activities promotes a sense of connection to the natural world, which positively impacts children's mental health.	100	3	5	4.24	.712
Impact of Outdoor Activities on Children's Mental Health	100	2.50	5.00	4.0575	.51720
Valid N (listwise)	100				

Table 9: Frequency &Percent of Impact of Outdoor Activities on Children's Mental Health

S	Strongly disagree		not agree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
Outdoor experiences in natural environments reduce stress and anxiety levels among children.	-	-	5	5%	22	22%	32	32%	41	41%
Outdoor learning activities provide children with opportunities for relaxation and rejuvenation of mental resources.	-	-	2	2%	35	35%	29	29%	34	34%
Outdoor exploration and play contribute to the development of children's social-emotional skills, such as empathy and cooperation.	-	-	2	2%	24	24%	39	39%	35	35%
Spending time outdoors enhances children's mood and promotes feelings	-	-	-	-	30	30%	28	28%	42	42%

of happiness and joy.										
Exposure to natural environments during outdoor learning activities promotes a sense of connection to the natural world, which positively impacts children's mental health.	-	-	-	-	16	16%	44	44%	40	40%

5. The Impact of Outdoor Activities on Children's Academic Performance

- Statement "Nature-based experiences offer diverse learning opportunities that cater to different learning styles, leading to enhanced academic achievement" came in the first place with an arithmetic mean of 4.37 and a standard deviation of .747. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Outdoor exploration stimulates children's curiosity and promotes a passion for learning, resulting in improved academic performance" came in the second order, with a mean of 4.07 and a standard deviation of 1.112. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Collaboration and teamwork during outdoor learning activities enhance children's communication skills, which are essential for academic success" came in the third order, with an arithmetic mean of 4.03 and a standard deviation of .784. Therefore, the direction of the responses of the study sample is Agree.
- Statement "Outdoor learning experiences increase children's motivation to learn and participate in academic activities" in the fourth rank came with an arithmetic mean of 3.84 and a standard deviation of. 368. Therefore, the direction of the responses of the study sample is neutral.

According to the data presented in the table, the impact of outdoor activities on children's academic performance offers diverse learning opportunities that cater to different learning styles, leading to enhanced academic achievement, stimulates children's curiosity and promotes a passion for learning, resulting in improved academic performance, and increase children's motivation to learn and participate in academic activities.

Table 10: Descriptive Statistics of Impact of Outdoor Activities on Children's Academic Performance

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Outdoor learning experiences increase children's motivation to learn and participate in academic activities.	100	3	4	3.84	.368
Outdoor exploration stimulates children's curiosity and promotes a passion for learning, resulting in improved academic performance.	100	1	5	4.07	1.112
Collaboration and teamwork during outdoor learning activities enhance children's communication skills, which are essential for academic success.	100	3	5	4.03	.784
Nature-based experiences offer diverse learning opportunities that cater to different learning	100	3	5	4.37	.747

styles, leading to enhanced academic achievement.				
Valid N (listwise)	100		4.07	0.443

Table 11: Frequency &Percent of Impact of Outdoor Activities on Children's Academic Performance

S	Strongly disagree		not agree		Neutral		Agree		Strongly Agree	
	F	%	F	%	F	%	F	%	F	%
Outdoor learning experiences increase children's motivation to learn and participate in academic activities.	-	-	-	-	16	16%	84	84%	-	-
Outdoor exploration stimulates children's curiosity and promotes a passion for learning, resulting in improved academic performance.	3	3%	7	7%	19	19%	22	22%	49	49%
Collaboration and teamwork during outdoor learning activities enhance children's communication skills, which are essential for academic success.	-	-	-	-	29	29%	39	39%	32	32%
Nature-based experiences offer diverse learning opportunities that cater to different learning styles, leading to enhanced academic achievement.	-	-	-	-	16	16%	31	31%	53	53%

Conclusion

The study's findings emphasize the beneficial impact of outdoor learning activities on children's mental health, such as decreased stress levels, greater emotional well-being, and improved overall life satisfaction. Participating in outdoor activities enables youngsters to establish a connection with the natural world, relax from scholastic stress, and develop resilience and

emotional intelligence. By offering chances for rest, discovery, and recreation in natural settings, educators can promote children's mental health and overall well-being, establishing the groundwork for long-term mental wellness.

Furthermore, the study has revealed the substantial influence of outdoor educational activities on the academic performance of youngsters. Through the incorporation of outdoor activities into the curriculum, educators have the ability to augment engagement, motivation, and learning outcomes across a wide range of subject areas. Outdoor settings provide a dynamic and hands-on learning environment that promotes critical thinking, problem-solving abilities, and interdisciplinary connections. By engaging in practical activities, conducting inquiries based on questioning, and participating in meaningful experiences, children acquire a more profound comprehension of academic topics and cultivate a lifetime passion for acquiring knowledge.

This study highlights the significant impact of outdoor learning activities on children's overall development, including their mental health and academic achievements. It also emphasizes the importance of creating a lasting bond between children and the natural environment. Through the use of nature-based education, educators have the ability to establish inclusive and rewarding learning settings that allow children to excel academically, emotionally, and environmentally. As we progress, it is crucial to persist in promoting outdoor learning initiatives, allocating resources to outdoor education, and giving priority to the well-being and academic success of children in educational policies and practices.

Recommendations

In order to successfully incorporate outdoor learning activities into educational environments, educators, policymakers, and stakeholders can put into practice the following practical insights and recommendations:

- Provide educators with training and professional development opportunities to improve their understanding and abilities in the field of outdoor education pedagogy.
- Establish outdoor classrooms, nature trails, and additional outdoor learning environments on school campuses to create designated areas for outside activities.
- Promote parental involvement in fostering and strengthening outdoor educational opportunities both at home and throughout the community.
- Utilize evaluation tools to analyze the efficacy of outdoor learning activities and gauge their influence on student learning outcomes.

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Questionnaire

Demographic Questions

1. **Gender**

- ☐ Female
- ☐ Male

2. **Nationality**

- ☐ Saudi
- ☐ Non-Saudi

3. **Do you feel that outdoor learning activities help children learn better?**

- ☐ Yes
- ☐ No

1 = Strongly Disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree

NO.	Items	The Benefits of Outdoor Learning for Children				
		1	2	3	4	5
1	Outdoor experiences foster creativity and imagination in children.					
2	Engaging in outdoor learning enhances children's concentration and focus.					
3	Outdoor activities help children develop problem-solving skills.					
4	Outdoor learning fosters social skills and encourages collaboration among children.					
5	Outdoor activities instill in children a sense of environmental stewardship and appreciation for nature.					

NO.	Items	The Barriers to Implementing Outdoor Learning in Education				
		1	2	3	4	5
1	Weather conditions, such as extreme heat, cold, or inclement weather, pose challenges to conducting outdoor activities consistently.					
2	Lack of resources, including funding for outdoor equipment and materials, impedes the implementation of outdoor learning initiatives.					
3	Limited outdoor space and access to suitable outdoor environments hinder the implementation of outdoor learning activities.					
4	Lack of training and support for educators in implementing outdoor learning activities hinders their adoption and effectiveness.					
5	Curriculum constraints and standardized testing requirements limit opportunities for integrating outdoor learning into the academic curriculum.					

NO.	Items	The Impact of Outdoor Activities on Children's Mental Health				
		1	2	3	4	5
1	Outdoor experiences in natural environments reduce stress and anxiety levels among children.					
2	Outdoor learning activities provide children with opportunities for relaxation and rejuvenation of mental resources.					
3	Outdoor exploration and play contribute to the development of children's social-emotional skills, such as empathy and cooperation.					
4	Spending time outdoors enhances children's mood and promotes feelings of happiness					

	and joy.					
5	Exposure to natural environments during outdoor learning activities promotes a sense of connection to the natural world, which positively impacts children's mental health.					

NO.	**Items**	**The Impact of Outdoor Activities on Children's Academic Performance**				
		1	**2**	**3**	**4**	**5**
1	Outdoor learning experiences increase children's motivation to learn and participate in academic activities.					
2	Outdoor exploration stimulates children's curiosity and promotes a passion for learning, resulting in improved academic performance.					
3	Collaboration and teamwork during outdoor learning activities enhance children's communication skills, which are essential for academic success.					
4	Nature-based experiences offer diverse learning opportunities that cater to different learning styles, leading to enhanced academic achievement.					