

Student Name: Janna Saif

Module code EYEC 5010

Student number 2129742

Word count 4100

Abstract

This research investigates the impact of outdoor settings on promotion of children's physical development. It is essential to research this topic because outdoor activities greatly influence the development of children. Children, who engage in outdoor activities, enhance their physical skills, their senses, and their world view. The emphasis should be on the young children because they are the groundwork for several skills and behaviors. Through a qualitative approach using observation, we aim to get more profound insights into the children's outdoor experiences. By watching their activities and interactions, we can gain insights into their opinions and skills in addition to their immediately obvious behaviors, which will ensure a thorough comprehension. The ethical considerations of our study are very important since we are doing research on the children. We know that it is of great importance to safeguard the legal rights of children and their parents or legal guardians. Thus, before any observations are made, we will be certain that parental or guardian approval has been obtained. In addition, this procedure also ensures the protection of individual rights and makes the goals and methods of the investigation clear. Besides, we will ensure that each participant's identity and privacy are protected. The primary purpose is to give detailed information on the role of the outdoor environment in the physical growth of children. Our objective is to affect educational policies and procedures by getting knowledge from children's actions. The main purpose is to use the outdoor spaces to their maximum to enhance the education of young children in general.

Literature Review

In this literature review, we will examine whether outdoor areas promote children's physical development. A growing body of research suggests that being in nature can improve well-being and health (von Hertzen, Hanski, and Haahtela, 2011; Tyrväinen et al., 2014; Simkin, Ojala, and Tyrväinen, 2020). Outdoor play is vital for children's physical growth and well-being. Especially in early childhood education and care when the child growth is on top priority, teaching practices as well as policies can be influenced by understanding the effects of outdoor play on child's development.

Studies show that motor skills, coordination, and overall fitness are enhanced through outdoor activities (Veiga, Marmeleira, Laranjo, & Almeida, 2021). It also nurtures children's independence. Outdoor play naturally motivates children of all ages to engage in physical activities. Furthermore, an active lifestyle aids in burning calories and reduces the risk of diseases as they age (Bento & Dias, 2017). Being outdoors can foster increased mobility, leading to healthy physical activity and helping to prevent obesity due to the spaciousness and freedom it offers.

Children enjoy outdoor play as it boosts their physical health, stamina, and agility. Activities like running and jumping are beneficial too, as they help increase bone density, stability, and muscle mass. Climbing allows children to release energy, make noise, and take a break from hectic schedules and routines, while also aiding in developing strength, balance, and coordination. Outdoor settings enhance overall wellbeing and focus (Martenson, Boldemann, Soderstrom, Bennow, Englund, and Grahn, 2009). Moreover, outdoor play gives children the chance to practice all the key elements of physical literacy, including proprioception, balance, and spatial awareness.

Outdoor environments offer unique opportunities that are challenging to duplicate indoors. Unlike indoor environments, outdoor environments are dynamic and expansive. In ways that are not feasible indoors, children can play outside, experience independence, and interact with nature (Bento & Dias, 2017).

Outdoor play is essential for children's physical development, as highlighted by the Early Years Foundation Stage (EYFS) standards. It is crucial for children to develop gross motor skills like running, jumping, climbing, and balancing, which help them navigate obstacles and open spaces safely. These skills allow children to engage energetically in a variety of physical activities, contributing significantly to their overall health and wellbeing. Children can enhance their fine motor skills through outdoor play, engaging in activities that require precise manipulation of small tools such as paintbrushes and scissors, as well as gripping pencils or utensils in a mud kitchen or handling tiny objects in a sandbox. By strengthening their muscles, honing their coordination, and engaging in

outdoor activities, children develop physical literacy within natural environments (EYFS, 2017).

The government highly prioritizes early physical development as it promotes cognitive and socio-emotional growth, laying the foundation for a healthy lifestyle. Outdoor learning is especially advantageous for enhancing children's physical development, offering opportunities for active play, outdoor exploration, and motor skill enhancement in an engaging environment. Aligning outdoor activities with EYFS standards allows educators to foster an environment conducive to children's comprehensive and physical development (Natural England, 2016).

Previous research (Kemple, oh, Kenney, & Smith-Bonahue, 2016) indicates a strong link between children's physical development and outdoor spaces. Access to outdoor environments positively correlates with children's motor skills and physical activity levels. Activities like biking contribute to the development of gross motor skills, while drawing with chalk on a board or pavement enhances fine motor skills, crucial for handwriting. Outdoor areas support the development of fundamental motor skills and physical health by offering diverse opportunities for movement and exploration (Gallahue et al, 2007).

Although, there are many advantages of outdoor play, but it also might present a lot of difficulties. The lack of access to secure and engaging outdoor spaces, specifically in metropolitan setting, hamper the fair participation in outdoor activities (Loebach & Sanches & Jaffe & Elton-Marshall, 2021). Additionally, worries regarding environment threats, supervision, and safety may impact the attitudes of caregivers about outdoor area. Outdoor activities give children access to sunshine, clean air, and the natural world, all of which strengthen their bones, strengthen their immune systems, and keep them active. However, parents these days are more concerned with outside incidents, so they would rather keep their children indoors, engage in structured activities, and keep a close eye on them.

Physiother & Ther & Santoso (2022) acknowledge that while the benefits of outdoor play for children are well-recognized, parental concerns about weather, illness, and safety often restrict such activities. They recommend collaboration among educators, parents, community stakeholders, and legislators to develop accessible and inclusive outdoor spaces for children.

In summary, outdoor play is immensely beneficial for children's physical development and overall well-being. Through active play and exploration in natural settings, children acquire essential physical literacy, motor skills, and socio-emotional competencies. Early childhood educators play a vital role in creating environments that encourage outdoor play and provide enriching outdoor experiences for children.

Section 3. Methodological Considerations

The main goal of this study is to reveal if the outdoor spaces favor the growth of children physically. In this study, the interpretation, implementation, and interaction in natural contexts of the participants will be examined in a settings outdoor area. These findings will be generated using a qualitative technique as a research area of this study.

Qualitative research captures participant experience using surveys, focus groups, and interviews to get in-depth understanding of the real-world issues. Unlike fact gathering, it concentrates on providing "how" and "why" of a problem for someone. In it, open-ended questions are used to detect the nuances which cannot be stated in numerical data (Steven et al, 2022).

Qualitative research is more flexible than quantitative research, which appears frame-worked in a linear manner. The main advantage of this is the capability to interpret the complex human behavioral tendencies and the working processes. It offers a chance to participants to voice their understanding, feelings, and existential events, gives the comprehensive insight into the phenomena which are studied (Tenny, Brannan, & Brannan, 2022). One excellent choice for this study is qualitative research, as it is tailored to capturing the whole picture, the subtleties of outdoor activities and how they affect children's development.

Limitation: A significant challenge in qualitative research is the presence of observation bias. For example, the Hawthorne effect describes the alteration of participant behavior due to the consciousness of being observed, complicating the task of identifying authentic behaviors. Participants may hide their true actions or emotions, opting to keep them private (Payne and Payne, 2004). Similarly, the observer-expectancy effect can lead to participants subconsciously changing their behavior or answers to match what they believe are the researcher's expectations. Thus, it is vital to reduce or manage the impact of the researcher's biases (Holmes, 2011).

Research Sample: An important consideration in assessing the accuracy of a study is sampling (Bhardwaj, 2019). For research factors, a subgroup of people from a wider population is chosen.

Sample Group of Children: Bell (2018) suggests that in small studies, we must do the best we can with sampling. We have selected four children, aged 3-5, to represent our primary focus group to ensure a diversity of experiences. This group includes two boys and two girls, who will be referred to as Child A, B, C, and D. It comprises a child with Special Educational Needs and Disabilities (SEND), which necessitates specialized educational techniques for children facing learning challenges.

Issues connected to the body in terms of physical health, emotions, behavior, or thoughts may be regarded as behavioral health challenges. The method for choosing these children is called purposeful sampling, which is a nonprobability sampling strategy. To find and choose examples that are rich in information while making the most use of the limited resources available, purposeful sampling is a frequently used strategy in qualitative research (Palinkas et al., 2015).

Using this approach, individuals or organizations with substantial expertise or understanding of the issue being studied are selected. Diverse participants with interesting, specific, and in-depth answers are the criteria for the selection. Finding willing participants to participate in study is a difficult and demanding endeavor for researchers in many domains, particularly those involving gender. Men and women adopt distinct

attitudes when asked to participate in a study or cooperate in an activity because they have different personalities and behave differently in society (Mohajer, 2019). It is assured, likewise, that any preferences in gender specific physical activity and development will be spotted by involving children of both genders.

Integrating child with SEND means that the study results are applicable for all by offering a lens to the success with which outdoor spaces cater for a diverse range of needs.

Sample Group of Adults:

The study will cover a sample community of adults consisting of parents, educators, and caregivers. To gather their opinion and views about the children's physical activity beyond indoor spaces, we will be asking some questions and conducting some discussions with them. Adult group was chosen to provide the wide range of opinions regarding the development of child physiologically and the function of outdoor spaces. Their analysis will be used to triangulate the data, thus giving more context and depth to the results.

Research Methods:

Observation: The primary means of collecting data for this study are observation and observation-based methods. It is crucial for researchers to conduct observational studies in order to obtain really transparent, unrestricted, real-time data that reflects the essential characteristics of participants' behaviours and responses (Katz-Buonincontro & Anderson, 2018). This method enables one to fully understand any occurrence in every detail.

Moreover, the observation can be done in an unstructured or planned manner which gives the researchers opportunity to dig deeper into specific behaviors or maintain a particular behavior. Overall, observation helps widen and retain the depth of studies by giving a generalist impression of the context. This way implies systematically recording the actions and behaviors that take place between children by observing them in outdoor settings. A diversity of behaviors and activities will be recorded during the period, therefore multiple sessions will be held for the observations. Among the observation method's essential features are:

- **Non-participant Observation:** To eliminate interference and to ensure that the children's behaviors are real and natural, the researcher shall observe the child without interacting or interfering with them directly.
- **Structured and Unstructured Observation:** Both directed and undirected viewing will be used to collect comprehensive data. Specified observable behaviors and activities are those to be under strict observation, whereas unstructured observation is explorative and uncapped to capture unpredicted acts.
- **Field Notes:** All the field notes will be noted down thoroughly during every observation session, focusing on the types of physical activities, duration of play and interactions with peers and surroundings, as well as any interesting developmental milestones or concerns.

Discussions with Adults: Conversations will be added to get additional information from the adult sample group, along with the observation data. This method will add more understanding to the factors impacting children's physical activity and growth. Among these methods' principal features are:

Semi-structured Interviews: These discussions will start from a set of open-ended questions but also will be flexible enough to be redirected to a new topic when the other party raised a new issue during the conversation. By encouraging a variety of points of view, this method ensures that the dialogue remains on course.

Triangulation:

Purpose of Triangulation: Triangulation relates to the confirmation and furthering of research findings using several sources of data, methods, or perspective (Carter et al., 2014). In the research, triangulation represents the inclusion of many hypotheses, methodologies, or observers to mitigate the predictable bias due to depending on just one of these approaches. By means of this, it minimizes some shortcomings and largely increases the accuracy of the findings. Improving their approaches, which include a vast array of techniques that lead to more thorough and balanced perspectives, is essential during the interpretation and explanation of complex human behavior (Noble & Heale,

2019), Researchers ensure that their data is valid and reliable by using the triangulation method. The application of Triangulation throughout both the quantitative and qualitative studies is essential as it enriches the evaluation process and strengthens the overall study analysis.

This study utilizes triangulation to guarantee the validity and reliability of the data as well as provide comprehensive understanding of the problem. In this case, triangulation serves the following purposes:

- **Increasing Credibility:** The credibility of findings is further enhanced by comparing results of the observational data with information collected from surveys and speeches.
- **Offering a Holistic View:** Unlike direct observation triangulation brings together both direct observations and parental perspectives to capture many facets of the physical development of children through the environments.
- **Finding Inconsistencies:** It provides a higher degree of reliability of the outcomes through the ability to make the search and the solution of any problems with the data.

Implementation of Triangulation: The following methods will be used in this study to achieve triangulation:

- **Data triangulation:** This is the activity that involves the gathering of information from different sources, such as the adults who show their ideas and the children who are followed. This method guarantees that the findings will be supported by many types of evidence rather than being dependent on just one type.
- **Methodological Triangulation:** It is a multipoint data gathering strategy that comprises discussions and observations. This approach leads to a deeper and more detailed exploration of the object of research.
- **Investigator Triangulation:** To reduce the bias and make the data more reliable, numerous experts conduct the evaluation. To make sure that the facts and interpretations are checked and verified, the primary researcher will collaborate closely with the secondary researcher. Consequently, the methodology applied in this study that combined interviews and observations with a diverse sample, gives a good base for interpreting the psychological outcomes of natural environments for the children. In strengthening the validity of study results, triangulation enables us to have a better

understanding of the ways the natural atmosphere supports the development of children. Through this research, we are aiming to show the role that the outdoor environments have on the support of children's healthy physical development and to advocate for the outdoor spaces that are inclusive and well-planned to cater for all the children.

Ethical considerations

Ethics tackles ethical dilemmas which emerge when research is being carried out; deciding what is acceptable as well as what is deemed as good or wrong. It signifies the need for researchers to pay attention to such rights and interests, the academic community, society, and the participants in research (Mirza & Bellalem & Mirza, 2023). To guarantee compliance with the basic principles of ethical research involving human beings, researchers must look the early published guidelines. Researchers ought to conduct their work with a respect for all those involved in or impacted by their research, including themselves (BERA, 2024, p. 11).

The ethics in research involving children must always be considered since they are highly vulnerable population and thus their rights and wellness must be ensured. This implies taking a critical view on how to communicate and interact with young children and their guardians, guaranteeing safety of the participants, maintaining confidentiality, minimizing risks, and adhering to institutional and legal guidelines about collection and storage of data (Montreuil, 2021).

Gaining Consent from Participants: Consent is a research process with exchange of information between the researcher and participants represented. The data must be sufficient and clear to understand for people with decision making function. Participants should decide on their own about whether to take part. Respect for a person implies that he/she should have the independence to decide whether to participate in the study or not (Manandhar & Joshi, 2020).

The most important step for research involving children is to obtain an informed consent. As to both the children (assent) and the guardians (parental consent) should be obtained.

Parental Consent:

- **Forms for Informed Consent:** Parents or adult guardians must be provided with exhaustive information about the research, which includes the aim, the procedures, the potential benefits, and the dangers. It is essential to articulate this using comprehensible word.
- **Voluntary Participation:** It should be emphasized that parents can take their children out of the study at any stage without the fear of any repercussions According to the BPS Code of Human Research Ethics (2021), when conducting research involving children under the age of 16, it is imperative that researchers inform parents or guardians about the study's nature and provide them with the option to withdraw their children if they so desire.
- **Clarifying Questions:** Parents should be allowed to ask any question or be able to voice every concern before giving an informed consent.

Child Assent:

Age-appropriate Explanation: A study ought to provide a way for children to properly get a hold of it according to the stage of their development and understanding. It will cover task description and explaining the reason behind it.

Voluntary Participation: Researchers must ensure that children are aware that they can stop engaging any time they want, without facing any consequences.

Observing Non-verbal signs: In addition to monitoring verbal cues, researchers must also be observant of non-verbal symptoms that can show that a child is uncomfortable or perhaps has no desire to engage in the activity. In some cases, young children may not be expressive of their feelings verbally.

Ensuring Confidentiality and Anonymity:

The most valuable tool for privacy protection of the respondents is following ethical standards related to confidentiality and anonymity when handling, analyzing, and reporting the data generated during the study (Kang & Hwang, 2023).

Confidentiality:

- Data handling: Confidentiality of all participants personal data must be assured. This involves providing data storage security and guaranteeing that a person with authorisation is the only one who can retrieve the data.
- Sensitive Information: To protect privacy of participants, all the sensitive information they share, especially in conversations with adults, should be stored highly secretly.

Anonymity:

- De-identification: To avoid the recognition of individual participants, the information from the data should be eliminated or changed on an anonymous base.
- Use of Pseudonyms: The purpose of pseudonyms will ensure the preservation of the identity of the study participants. These can be used in place of real names in any published report or presentation.

Reducing Risk to Participants, Researchers, and the University: In the past, risk assessment in research was restricted only to subject risks. A growing body of evidence shows that researchers might be exposed to certain risks because of their work (Dickson-Swift & James & Kippen & Liamputtong, 2008). The safety of each person is one of the key ethical aspects of research which is assessed on the physical, emotional, and psychological level.

Risk to Participants:

- Physical Safety: Be careful that the children are not endangered by physical phenomenon while in the observation area.
- Emotional Well-Being: Researchers need to have in place the intervention process in cases where a child becomes agitated or uncomfortable. They must also be taught to pinpoint all signs of distress.
- Respectful Interaction: Talking to adults should be made in a polite way and without being an intrusive or a persuasive way.

Risk to Researchers:

- Training: Ethical research procedures including child protection must be known to researchers.
- Support Systems: Help researchers who may find themselves in unexpected situations or may run into unsettling exposures.

Risk to the University:

- Adherence to Laws: Ensure that the study fulfills its obligations and complies with all the other statutes and laws, including the General Data Protection Regulation (GDPR) and Data Protection Act.
- Board of Institutional Review (IRB) Approval: Adequately make sure that the framework complies with ethical guidelines and the potential hazards associated with it have been reduced by obtaining approval from the university's IRC or ethics committee.

Data Collection and Storage: For observing ethical principles and following legal mandates, appropriate data assembling, and storage are needed.

Data Collection:

- Documentation of Consent: Record the consent and assent processes completely and include exact parent-signed consent forms and child-spoken assent records.
- Accurate Recording: Ensure exclusion from any bias, prejudice or fabrication of the assertions and observations made during the conversation.

Data Storage:

- Secure Storage: Keep your data safe from outside interference by storing them in secure physical storage or password-protected digital sources.
- Retention Period: Follow regulations governing how long data should be stored in the system and overwrite those files when they are no longer used.
- Regulation Compliance: Comply with all applicable legal requirements and university regulations governing data privacy, including GDPR when managing personal information.

Ethical Sensitivity in Interactions with Children: Research regarding children has various positive and negative aspects, all influencing scientific achievements and the well-being of the children. The ethical conduct in such research is essential for the children protection emphasizing that they never suffer in the process. It is very imperative to get an informed consent that involves making sure that children's autonomy is respected and valued (Karadeniz, 2024). Attentiveness to the feelings, rights, and opinion of the children is crucial when working with them.

Child-Centered Approach:

- **Empowerment:** Give children the chance to participate in research process and let them know that you care about their opinions and preferences.
- **Creating a Safe Environment:** Encourage young children to share their ideas in a safe and positive atmosphere.

Cultural Sensitivity:

- **Respect for Diversity:** Be aware of and demonstrate respect for the children's and adults' diverse backgrounds as they engaged in the study and all interactions that are sensitive to cultural differences are done that way.
- **Inclusive Practices:** Ensure that all the participants of any social background or level of cognitive capabilities have the study materials at their disposal and are part of the learning process.

Ethical Review and Oversight: Ethical review and oversight are expected to secure an ethical and responsible conduct of the study.

Ethics Committee Review:

- **Detailed Proposal:** Attach to the university's ethics committee an extensive research proposal that explains the aims, the methodology, the ethical issues, and what actions will be taken to minimize the risk of the project.
- **Continuous Observation:** Oversee the moral aspect of the study through continued monitoring and reporting to the ethics committee to avoid compromising the integrity of the study all through.

Feedback and Adaptation:

- Feedback from Participants: To be certain that the comfort and safety of participants is taken care of, especially children; invite them for feedback on a regular basis.
- Adaptation of methodologies: Have protocols and methodologies set up and ready for modification in case of comments or unexpected ethical matters.

Involvement of the children into the research has a wide range of ethical issues that is critically considered before specialized research is conducted. It's essential to have ethically sound research subject to the principles of informed consent, maintaining confidentiality and anonymity, reduction of risk, and complying with regulations on data protection. In effect, the study's ethical integrity is maintained through creating a place of dignity, empathy, and empowerment where the child participants can feel the same. Through this commitment to ethical standards, researchers can study how outdoor spaces influence children's physical development without taking advantage of or neglecting the subjects' rights and welfare.

References:

Bento, G. and Dias, G. (2017). The importance of outdoor play for young children's healthy development. *Porto biomedical journal*, 2(5), pp.157-160.

Bhardwaj, P. (2019). Types of sampling in research. *Journal of Primary Care Specialties*, 5(3), pp.157-163.

British Psychological Society (BPS) (2021) BPS Code of Human Research Ethics. Available at: BPS Code of Human Research Ethics| BPS- British Psychological society Accessed 12th May 2024 [BPS Code of Human Research Ethics | BPS](#)

Cresswell, J. W. (2008) *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. 3rd ed. Pearson Education International.

Department for Education (DfE), (2017) Early Years Foundation Stage: Statutory Framework.

Department for Education (DfE), 2017. Early Years Foundation Stage: Statutory Framework. https://assets.publishing.service.gov.uk/media/65aa5e29ed27ca001327b2c6/EYFS_statutory_framework_for_childminders.pdf

Dickson-Swift, V., James, E.L., Kippen, S. and Liamputtong, P., 2008. Risk to researchers in qualitative research on sensitive topics: Issues and strategies. *Qualitative health research*, 18(1), pp.133-144.

Gallahue, D.L. and Donnelly, F.C. (2007) *Developmental physical education for all children*. Human Kinetics.

Holmes, S.Y. (2011). Mitigating the Hawthorne effect using computer simulations. In *Serious Educational Game Assessment* (pp. 175-187). Brill.

<https://www.proquest.com/scholarly-journals/ethical-issues-research-with-children-young/docview/218893142/se-2>

Jan, J.B.M. (2020) Gender Differences: Factors Influencing Men and Women's Participation in Gender Research. *European Proceedings of Multidisciplinary Sciences*.

Kang, E. and Hwang, H.J. (2023) The Importance of Anonymity and Confidentiality for Conducting Survey Research. *Journal of Research and Publication Ethics*, 4(1), pp.1-7.

Karadeniz, G., 2024. Ethical Issues in Research Conducted with the Participation of Children. In *Methodologies and Ethics for Social Sciences Research* (pp. 59-73). IGI Global.

Katz-Buonincontro, J. and Anderson, R.C. (2020) A review of articles using observation methods to study creativity in education (1980–2018). *The Journal of Creative Behavior*, 54(3), pp.508-524.

Kemple, K.M., Oh, J., Kenney, E. and Smith-Bonahue, T. (2016). The power of outdoor play and play in natural environments. *Childhood education*, 92(6), pp.446-454.

Loebach, J., Sanches, M., Jaffe, J. and Elton-Marshall, T. (2021). Paving the way for outdoor play: examining socio-environmental barriers to community-based outdoor play. *International journal of environmental research and public health*, 18(7), p.3617.
<https://doi.org/10.3390/ijerph18073617>

MacNaughton, G., Rolfe, S., Siraj-Blatchford, I. (2001) *Doing Early Childhood Research*. London: Allen & Unwin.

Manandhar, N. and Joshi, S.K. (2020) Importance of consent in the research. *International Journal of Occupational Safety and Health*, 10(2), pp.89-91.

Maynard, T. and Waters, J. (2007). Learning in the outdoor environment: a missed opportunity? *Early Years*, [online] 27(3), pp.255–265. doi:
<https://doi.org/10.1080/09575140701594400>.

Mirza, H., Mirza, C. and Bellalem, F. (2023) Ethical considerations in qualitative research: Summary guidelines for novice social science researchers. *Social Studies and Research Journal*, 11(1), pp.441-449.

Mohajer, Leila. (2019). Gender Differences: Factors Influencing Men and Women's Participation in Gender Research. 786-796. 10.15405/epms.2019.12.80.

Montreuil, M., Bogossian, A., Laberge-Perrault, E. and Racine, E., (2021). A review of approaches, strategies, and ethical considerations in participatory research with children. *International Journal of Qualitative Methods*, 20, p.1609406920987962.

Mukherji, P. and Albon, D. (2018) *Research Methods in Early Childhood*. 3rd ed. London: Sage Publications.

Natural England (2016). *England's largest outdoor learning project reveals children more motivated to learn when outside*. [online] GOV.UK. Available at: <https://www.gov.uk/government/news/englands-largest-outdoor-learning-project-reveals-children-more-motivated-to-learn-when-outside>.

Noble, H. and Heale, R. (2019) Triangulation in research, with examples. *Evidence-based nursing*, 22(3), pp.67-68.

Owl Tutors (n.d.). Understanding SEN: The Four Crucial Categories. Retrieved from: <https://owltutors.co.uk/four-categories/>

Palinkas, L.A., Horwitz, S.M., Green, C.A., Wisdom, J.P., Duan, N. and Hoagwood, K. (2015) Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and policy in mental health and mental health services research*, 42, pp.533-544. <https://doi.org/10.1007/s10488-013-0528-y>

Payne, G. and Payne, J. (2004). The Hawthorne effect. *Key concepts in social research*, pp.108-111.

Physiother, Ann & Ther, Occup & Santoso, Tri. (2022). The Benefit of Outdoor Activity for Child Development. *Annals of Physiotherapy & Occupational Therapy*.

Roberts-Holmes, G. (2018) *Doing your Early Years Research Project*, 4th ed. London: Sage.

Robin, M. (2009BC). Ethical issues in research with children and young people.

Simkin, J., Ojala, A. and Tyrväinen, L. (2020). Restorative effects of mature and young commercial forests, pristine old-growth forest, and urban recreation forest-A field experiment. *Urban Forestry & Urban Greening*, 48, p.126567.

Simkin, J., Ojala, A. and Tyrväinen, L., 2020. Restorative effects of mature and young commercial forests, pristine old-growth forest and urban recreation forest-A field experiment. *Urban Forestry & Urban Greening*, 48, p.126567.

Solly, K. (2022). *Outdoor learning in the early years*. [online] Early Education. Available at: <https://early-education.org.uk/outdoor-learning-in-the-early-years/>.

Triangulation, D.S. (2014). The use of triangulation in qualitative research. In *Oncol nurs forum* (Vol. 41, No. 5, pp. 545-7).

Tyrväinen, L., Ojala, A., Korpela, K., Lanki, T., Tsunetsugu, Y. and Kagawa, T. (2014). The influence of urban green environments on stress relief measures: A field experiment. *Journal of environmental psychology*, 38, pp.1-9.

Veiga, G., Marmeleira, J., Laranjo, L. and Almeida, G. (2020). The Importance of Outdoor Practices for Children's Health and Development and for the Community.

Von Hertzen, L., Hanski, I. and Haahtela, T. (2011). Natural immunity: biodiversity loss and inflammatory diseases are two global megatrends that might be related. *EMBO reports*, 12(11), pp.1089-1093.

www.nidirect.gov.uk. (2018). *Playing outdoors* | *nidirect*. [online] Available at: <https://www-nidirect-gov-uk.translate.google/articles/playing-outdoors?> [Accessed 13 May 2024].

