Title – An exploration of parent's perceptions of outdoor learning in the early years

Abstract

This study examines the available data on outdoor learning for young children, paying particular attention to the viewpoints of the parents. It explores the motivation behind researching this subject, summarises important conclusions from the relevant literature, and offers extensive guidance for carrying out research in this field.

The purpose of this study is that parents have strong influences on their children and on the types of activities they engage in, with positive parental attitudes towards the outdoors, impacts on children's enjoyment and participation in outdoor experience and learning .With in depth knowledge of parental feelings, beliefs and requirements for successful outdoor learning the perceptions of parents may change when they are given more opportunity to voice their concerns which can then be used for the future and be put into practice. This study will use a mixed method approach of online survey with a sample size of 50-100 participants and a semi structured interview with 10-15 participants. Consent from UWTSD (University of Wales Trintiy Saint David) Swansea is required and the consent of head teachers/ managers and Staff of the chosen Primary school and nursery settings that will be invited to participate in the study. Written consent from parents that wish to participate will also be required and the participants right to withdraw explained.

Introduction

Outdoor learning in the early years has gained significant attention in last ten years, as it is suggested to enhance children's development across various domains.

When undertaking a piece of research Burns (2000) and McBurney (1998) considers there to be three sources to consider the related literature, the theories, and the experience related to the topic. Parents recognise the value of outdoor experiences for their children's development and support outdoor learning, however further in-depth

research into the factors that cause them concerns are required. Parents have strong influences on their children and on the types of activities they engage in, with positive parental attitudes towards the outdoors, impacts on children's enjoyment and participation in outdoor experience and learning.

Literature review

The first step in this study design was to perform a systemic review of the current literature on 'parents' perception on outdoor learning in the early years. It aims to look at what aspects are currently working or furthermore not working and where there are areas to improve which is suggested by Bell and Waters (2018).

Two primary sources were used to commence the search for literature in this area, the University library and Google scholar. Key words initially used were 'parent perceptions, 'outdoor learning' and 'early years. Several hundred articles related to this area of research were found, however, the majority of these looked at early years outdoor learning but did not reflect parents' perceptions. McBurney (1998) suggests the search criteria needs to be specific therefore further searches were performed firstly looking at 'parent's perceptions of 'Outdoor learning' and then early years was added. To ensure results were the most up to date, periods of the research was highlighted. This search looked firstly at the current year of 2024, which resulted in just two articles that fulfilled the criteria then the search was broadened to research since 2019. The search produced several articles relating to the key words with fair to convincing evidence. A review of their abstracts which McBurney (1998)and Burns (2000) recommends, was then performed to determine their relevance, which would inform the literature review ahead of the researcher performing their research. A further review of the reference list of the key papers also ensured all relevant articles were found. Advanced use of a spreadsheet would be used to compare this literature as suggested by Ose (2016).

Numerous studies including Sella *et al. (*2023) Cheng *et al. (*2023) Kiviranta *et al.* (2024) Kemp and Josephidou (2023) and (Garden and Downes 2021) highlighted the

benefits of outdoor learning for children in the early years in their articles. Including a higher physical activity level, improvement in motor skills, better cognitive flexibility, and problem-solving abilities, increased social interaction and cooperation, and a reduction of stress and anxiety. However not all articles specifically contributed to the perspectives of parents.

Allen and Velija (2022) study and McHugh *et al (*2023) study both found that during their research parental perspectives was limited. However, the studies did highlight that parents recognise the value of outdoor experiences for their children's development and support outdoor learning. Allen and Velija (2022) looked at parents' perceptions during Covid-19 and McHugh et all (2023) on the relationship between parental knowledge and nature experiences.

LeMasters and Vandermaas-Peeler (2021) study on 'Exploring outdoor play: a mixed-methods study on perceptions of risky play', preschools and parents were invited to complete a survey, fifty-seven identified as female and one male participants. The survey was sent via online links which consisted of 31 questions, 5 open ended questions and 6 demographic questions. Puk (2021) study on 'Nurturing experience which was done via semi structured interview method. These studies investigated the factors influencing parental attitudes on outdoor play in relation to safety concerns. Parents had concerns that worried them about their children engaging in outdoor 'risky play.' These studies suggest that the concept of risk and risk management has created a false impression that there is something inherently dangerous about learning outdoors. Rough and tumble play was discussed by parents in LeMasters and Vandermaas-Peeler (2021) study, suggesting they were accepting of rough, and tumble play with limitations. Half of the teachers that participated in this study did confirm that they felt risky play was beneficial for children's development, and they had a duty of care to the children in their care and that outdoor learning experiences was part of their curriculum. Moreover, LeMasters and Vandermaas-Peeler (2021) as well as Wu, Ji, and Jin (2023), who studied 'Parental factors affecting children's nature connectedness,

found that parents that had previous good experiences of their own outdoor play as a child supported outdoor learning and recognised the holistic benefits. LeMasters and Vandermaas-Peeler (2021) also look at the benefits of social and emotional development and imaginary play in the outdoors. They talk about the elements of competitiveness and highlight children cannot pretend to be superheroes like spiderman and jump from place to place and run as fast as their favourite characters when indoors.

The perceptions of educational benefits differed between parents and teachers in Martin *et al.* (2023) study. This study used interviews as their method of research with open ended questions. Parents felt that children after the covid 19- pandemic had spent more time learning outdoors and academic achievements had dropped. Teachers argued that there were several factors to consider after the pandemic and according to Allen and Velija (2022) study on 'Parents perceptions of physical activity during Covid-19 and beyond' found outdoor learning was a positive factor as it gave opportunities to socialise and mix again in a safer environment and return to 'normality' from a situation that children had really found difficult to deal with. These researchers performed a UK national online survey that was completed by 925 parents then then undertook sixteen tailored, follow-up semi-structured interviews.

Sella *et al.* (2023) performed a systematic review of all the evidence there was on the 'Psychological Benefits of Attending Forest School'. A systemic review is a review of all previous literature on the subject. They suggested that the children attending forest preschools, compared to standard indoor preschools, was reported by both teachers and parent to showing positive development in their psychological resilience. Moreover in 'Educator-perceived barriers and facilitators to structured-physical activity in early childhood centres, another systematic review parents' engagement in child-focused interventions is increasingly recognised as an important aspect of effective intervention (Jerebine, Heering and Barnett, 2024).

McHugh *et al.* (2023) studies explore the relationship between parents' knowledge and attitudes towards outdoor learning and found that this is limited and there was a gap for further literature. The total sample for this study was 226 participants, however, 101 dropped out throughout the survey and forty-three did not pass the screening questions, significantly affecting the aim of the study. Recruitment took place through social media and participants were encouraged to share the link to further recruit individuals. Despite the sparse numbers there was a suggestion that children are spending significantly less time outdoors than previous generations, moreover, this study finds that programs aiming to improve parental attitudes towards outdoor learning and free play may be beneficial. McHugh *et al*. (2023) and Puk (2021) recognise the strong influences parents have on their children and on the types of activities they engage in, with positive parental attitudes towards the outdoors, impacts on the greater time spent outdoors for children.

Martin *et al.* (2023) study also highlighted that parents have a significant role to play in children's development and socialisation and importance of parents encouraging children to participate in outdoor play and learning. Included in this study was details of connections between outdoor learning and sleep which took this research to a further article. Kokkonen (2021) a study on 'Associations between parent–child nature visits and sleep' which was a cross-sectional study conducted in 2015-2016 as part of the increased health and wellbeing in preschool study. This study found that frequent nature visits and outdoor play for children aged 3-6 years associated with better night's sleep for children. While this study suggests this the following study contrasts in its findings it does find that outdoor learning has been shown to have a significant impact on the health and wellbeing of children and young people according to Pillman (2022) cited by French (2023) especially during the Covid-19 pandemic. Schools play a crucial role in providing opportunities for outdoor experiences, particularly for disadvantaged pupils. The Outdoor learning handbook (2009) discusses the importance of outdoor learning in Wales, emphasizing the benefits of experiential learning and the development of children's skills.

Methodological Considerations

Conducting any research requires careful attention suggested by McBurney (1998) to methodological considerations, using these methods of research techniques guarantees the accuracy and consistency of the results and helps to knowledge in the field of early years (Daniel, 2016). Deciding on a research methodology is an integral part of the research design according to Walker and Solvason (2014) and needs to be distinguished from the choice of methods to collect data that is used. This allows for more accurate findings. It is imperative to carefully evaluate the most suitable research design for this study. Depending on the research questions and objectives, this may include utilising mixed methodologies, quantitative, or qualitative approaches (Nolan, Macfarlane, and Cartmel, 2013).

Qualitative research methods Interviews and observations allow for in-depth exploration, the parental perspectives, and children's experiences according to Elo (2014), which is the method LeMasters and Vandermaas-Peeler (2021) used through inviting preschools to complete interviews. Puk (2020) and Martin *et al.* (2023) also used a qualitative method through semi structured interviews, this was deemed most appropriate as it allowed for a rich description.

Another approach suggested as valuable by Nolan, Macfarlane, and Cartmel (2013) include, **Semi-structured interviews** enabling researchers to delve into parents' past experiences, attitudes, beliefs, and worries regarding outdoor learning, which aligns with the study's objectives (Elo, 2014 and Walker and Solvason, 2014).

Observations: Researchers can record children's interactions and behaviours in outdoor settings by employing observational methods. This allows researchers to get important insights into the children's experiences and learning outcomes, which they can subsequently share with parents (Walker and Solvason, 2014).

This method will not be used in this study as the focus is on the parents' perspective not the children, If the researcher did consider observational methods including children, parents' consent for their children's participation and if the children are mature enough to give consent this is required, however the child's assent needs to be considered and if the children seem uncomfortable at any time during observations the process must stop immediately as children also have the right to withdraw from participating (Nolan, Macfarlane and Cartmel, 2013) and (UNICEF, 2024). Also, any research involving children must be mindful and consider the safety and wellbeing of the children. The children have rights during participation in research that impacts on them according to NSPCC (2023).

For many years, a variation of exciting methods has been used suggested by Harcourt, Perry, and Waller (2011) to engage with children in research. Methods such as the mosaic approach which the sense of ‘the child’s voice’ Clark (2005) which is a multi-method approach in which children talk about their experiences, the use of drawings, photographs, model and enact their experiences to promote engagement of children and observe to gain deeper understanding of their perspectives. These methods are usually used in combination. The reason is to promote a more child friendly approach and ease of clear understanding.

Harcourt, Perry, and Waller's (2011) Book offer a wide detail of methods, approaches and ethical debates and dilemmas of doing research directly with the children on outdoor play and could be further researching that could be conducted after gaining the findings of the parents’ perspectives to then delve deeper into the perspectives of the children themselves.

Focus Groups. Focus groups with parents can be facilitated to foster communication between participants and a group investigation of common experiences and viewpoints about outdoor learning (Daniel, 2016 and Elo, 2014).

Quantitative methods

Survey This is a unique form of gathering data from a large platform it gives opportunity for a greater statistical form and abilities to gain substantial amounts of information and having availability to validate these methods. The positive aspect of a survey is that they are easy to produce using the correct advanced software Zarouali (2024) such as survey monkey, google, question pro and JotForm are available, and the data can be collected online. The first page of the survey should clearly explain the purpose of the study, the participants right to withdraw and contact details of who to contact in the event of withdrawing. Consent can be obtained on the first page then a link to the survey once consent is granted.

While statistical analysis and larger insights can be obtained through quantitative surveys a **mixed research method** of data collection was used in McHugh *et al.* (2023) study, mixed method of qualitative interviews and quantitative online surveys used. Lin and Li (2018) also used mixed method approach during studies consisting of a various method from questionnaires, random sampling methods, Two-tailed Pearson correlation and generalized linear models.

Triangulation approaches offer fidelity and rigour which are not always found in single method studies. This method compares and combines various sources giving research validity and the outcomes of findings more convincing evidence suggested by Roberts-Homes (2018). One psychologist that used this method approach in the study of early childhood was Piaget (1959) cited by (Harcourt, Perry, and Waller, 2011).

Taking all the Literature into account and the methodology of previous researcher' and analysing the data, conducting a mixed method approach would be considered the most appropriate for this Research project. The researcher would attempt to combine qualitative and quantitative elements. Qualitative techniques such as semi structured interviews with a quantitative online survey, to explore parents' beliefs and experiences of outdoor learning. It will look at reasons for positive or negative attitudes towards

outdoor learning, their preference to types of outdoor activities, and attitudes towards their children's experiences of outdoor learning. Barriers identified could then be overcome and parents' views taken on board about how they would like to see this happen highlighted in previous literature are current concerns of parents and the dangers regarding outdoor learning.

Undertaking a survey would enable the collection of quantitative data from many parents allowing the research to compare and analysis of the data. This data will then be used to prepare questions for semi-structured interviews, which will allow for in-depth exploration of the view of parents, specifically relating to the gap in current literature which is the perspectives of the dangerous of outdoor learning. Children's Parents have a big influence on how children see life and how they feel about learning outside. Gaining an understanding of the viewpoints of parents can help identify factors that affect children's access to outdoor spaces and participation in outdoor activities. (Harcourt, Perry, and Waller, 2011).

This study will use **triangulation** method as a mixed method approach of survey and semi structured interviews will enable the researcher to ask open ended questions to the participants. Researchers should employ rigorous and systematic approaches according to Daniel (2016) to analyse qualitative and quantitative data. The strengths of the data from the semi structured interviews and the weakness of conducting data from surveys can be analysed and studied to improve outdoor learning in the future.

The survey can be administered via email, online and mobile devices. A link to the survey for parents to participate will be posted via Twitter, Facebook as both are social media platforms schools and settings currently use and directly to primary schools and nursery settings which they can provide via their school/settings webpage. Along with this link an obvious reason for the purpose of this survey, this will be 'The importance of this survey is to gain parents perspectives on learning outdoors in the early years, the feedback will directly contribute to improving educational learning experiences for the children outdoors.' Numerous questions will be asked relating to the views, attitudes,

opinions, beliefs, values behaviour, and factual feelings of parents on outdoor learning in the early years, this will give a flexible data analysis (Ball, 2019).

Online surveys are cost effective however may not be accessible to everyone and leaving out important respondents may impact on the research. In this case making paper copies which are the more traditional method will be available to post out on request. Another negative point to consider, is that respondents may not provide accurate answers. Surveys with closed ended questions does not allow for more in depth of information, therefore this study will limit the amount of closed ended questions and allow for open ended questions. Survey questions with unclear answer options also can cause unclear data for example ‘yes or no’ this can cause problems as the respondent may say ‘no’ because the option of ‘only once ‘is not available therefore considerations are required (Nolan, Macfarlane, and Cartmel, 2013). One of the questions in this survey will ask parents if they would be willing to participate in further research which will be a face-to-face interview. Options of leaving their email address for further contact will be asked allowing the possibility of more in-depth insight to be gained (McBurney, 1998). This method enables the ability to capture not just responses, but the context, emotions, and reasons behind them according to Burns (2000), also known as the Hawthorne effect referring to participants behaving differently when they know that they are being observed. What is observed may not represent “normal” behaviour, as a result. This then effects validity of your research.

This qualitative semi structured interview will allow open ended questions with the ability of asking further questions to the participating parent. Face to face interviews is more time consuming therefore the number of participants will be far lower to the survey. Between 15-20 participants will be selected. Recording the information can be collected by recording the interview, Dictaphone or taking notes (Nolan, Macfarlane, and Cartmel, 2013).

Sampling

One important methodological consideration is sampling. Preserving diversity in terms of place, socioeconomic status, and cultural viewpoints is crucial when recruiting participants for research on parental attitudes on outdoor learning in the early years. This will enable a thorough grasp of the various elements influencing parents' attitudes and behaviours with relation to outdoor experiences (Daniel, 2016).

Thoughtful recruitment strategies are essential for engaging participants in the study, Walker and Solvason (2014) suggest reaching participants, researchers use a variety of methods, including community organisations, schools, early childhood institutions, and online platforms. For this study, the researcher will use the place of work which is a Welsh primary in Neath Port Talbot authority and the Cylch Meithrin/Flying start setting and Rompers/Flying start day care setting who are both feeders into the early year's nursery class within the school. This will be a convenience sampling choice. During the data collection process, it is essential to establish rapport and trust with participants to obtain their informed consent and promote open communication. The sample size for this project anticipates between 50-100 participants for the survey and 10-15 participants for the semi structured interview, this number must be approximate as there is no way of foreseeing definite participants, if both parents wish to participate it could be higher.

Ethical Considerations

A researcher commits to taking responsibility when they do research studies. According to section 4.1 ERIC (2013) the University and its researchers should conduct their research in compliance with accepted good practice guidelines. Integrity in every facet of the study process, diligence, according to accepted discipline conventions and guidelines. Openness and transparency in disclosing conflicts of interest, courtesy, and consideration for everyone Accountability for the of the standards set by this Code (ERIC, 2013).

No harm should come to any participants, when children are involved in can be more complex according to Nolan, Macfarlane, and Cartmel (2013). Researchers must obtain before they begin consent from all participants, to ensure confidentiality and anonymity, and to minimize any potential risks or discomfort at any time, Under the Data Protection Act of 2018, they are required to abide by the ethical standards set by professional associations and institutional review bodies. The Data Protection Act of 2018 governs the use of your personal data by businesses, governments, and organisations. By carefully considering these methodological considerations suggested by Walker and Solvason (2014) and (BERA 2024) researchers can conduct rigorous and ethical studies that advance our understanding of parental perspectives learning in the outdoors in the early years and informing educational practice, policy development, and future research directions (Nolan, Macfarlane, and Cartmel, 2013).

It is imperative that participants receive accurate and comprehensible information regarding the aim, methodology, potential risks and benefits, and their entitlements as research participants.

If there are any minors involved, participants or their legal guardians should record and sign informed consent forms (Harcourt, Perry, and Waller, 2011).

Before this research begins Consent from UWTSD Swansea as suggested by *Research Integrity and Ethics* (no date) will be required and the consent of head teachers/ Managers and Staff of the chosen Primary school and nursery settings that will be invited to participate in the study. Written consent from parents that wish to participate will also be required (BERA, 2024). The explanation of the participants' freedom to withdraw at any moment, every participant has the right to withdraw from the study at any time and for any reason, and researchers should be aware of this right, section 31 BERA (2024). The purpose of this study explained and how the data will be stored in accordance with GDPR (2018) guidelines.

Confidentiality and Anonymity

During research Nolan, Macfarlane, and Cartmel (2013) and (Harcourt, Perry, and Waller, 2011) confirm that confidentiality and anonymity of participants is vital. researchers are required to adhere to the legal restrictions set forth in the UK under the Data Protection Act (1998) regarding the use and storage of personal data.

The Data Protection Act of 2018 mandates that any information gathered be kept private and kept safe to avoid unwanted access. The data for this study will be stored safely online with only access to the researcher, paper copies with be stored in a locked cupboard with only access by the researcher also. The data will only be stored until necessary no longer. According to BERA (2024) section 27 Transparency from the Researchers should try to be transparent and truthful since their research design specifically requires it to ensure that the correct data are obtained or that the researchers' safety is not compromised (BERA, 2024). To preserve participant privacy, identifying information like names, addresses, and phone numbers should be removed or anonymized from study reports and publications (Data Protection Act, 2018).

Minimization of Harm

According to Harcourt, Perry, and Waller (2011), researchers need to consider participant risks and take preventative measures to ensure that they do not cause harm to themselves or others. This includes making sure children are physically safe when participating in outdoor activities, attending to any emotional or psychological distress that may come up during interviews or observations, and offering appropriate support or referrals when necessary, such as Mind (2019) or ‘Children and Young People’s Mental Health Service’ NHS (2023).

Questions without intention can trigger past experiences and traumas therefore the researcher needs to be mindful of this and be supportive if necessary. Disclosures of any kind relating to the participant or children involved need to be addressed immediately and it line with the settings policy, the safeguarding officer informed, and guidelines followed, the researcher must be open and honest with the participant that

the discloses will be passed on and cannot be ignored as they have a duty of care **Section 28 of the Children Act 2004** to safeguard children and young people in line with Welsh Government (2021) policy.

According to BERA (2024) and Evans (2021) Cultural sensitivity should be taken into consideration, and researchers should respect the cultural traditions and beliefs of their participants. Participants' autonomy and freedom to leave the study at any moment without consequence should be respected by researchers. Additionally, as per the Data Protection Act of 2018, Participants will be made aware of their right to withdraw and given explicit instructions on how to do so before to starting.

Furthermore, Participants' choices about participating in the study and about any portion of data collection or distribution should be respected by researchers according to Evans (2021) and BERA (2024).

According to the Data Protection Act of 2018, researchers should try to maximise the positive effects of their work while minimising any potential harm. Part of this is making sure that their research incorporates expertise in early childhood education O'Mathúna (2022). To make sure that the research is inclusive and available to all relevant stakeholders, researchers should take equity and justice concerns into account while recruiting participants, gathering data, and publishing the findings. (Evans, 2021).

Feedback of research on participants request, should be provided in form of summary on completion (Walker and Solvason, 2014)

References

Allen, G. and Velija, P. (2022) ‘Parents perceptions of online physical activity and leisure with early years children during Covid-19 and beyond’, Leisure studies, 42, pp. 23–37. Available at: https://doi.org/10.1080/02614367.2022.2115111.

Ball, H.L. (2019) ‘Conducting Online Surveys’, Journal of Human Lactation, 35(3), pp. 413–417. Available at: https://doi.org/10.1177/0890334419848734

Bell, J. and Waters, S. (2018) Doing your research project: a guide for first-time researchers. Seventh edition. London: Open University Press, McGraw-Hill Education.

British Educational Research Association (BERA) (2018) *Ethical Guidelines for Educational Research, Fourth Edition (2018)*, *BERA*. British Educational Research Association. Available at: https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-2018-online.

Burns,R.B (2000) Introduction to research methods (4th edition). South Melbourne, Vic.: Longman

Cheng, T. *et al.* (2023) 'Perceived challenges of early childhood educators in promoting unstructured outdoor play: an ecological systems perspective', *Early Years*, 43(4–5), pp. 904–920. Available at: https://doi.org/10.1080/09575146.2022.2034140

Clark, A. (2005) 'Ways of seeing: using the Mosaic approach to listen to young children's perspectives', in Clark, A., Kjørholt and Moss, P. (eds.) Beyond Listening. Children's perspectives on early childhood services. Bristol: Policy Press, pp. 29–49 (Accessed: 3 May 2024)

Daniel, E. (2016) 'The Usefulness of Qualitative and Quantitative Approaches and Methods in Researching Problem Solving Ability in Science Education Curriculum', Journal of Education and Practice, 7(15), pp. 91–100 (Accessed: 1 May 2024)

Elo, S. and K., M. and Kanste, O. and Pölkki, T. and Utriainen, K. and Kyngäs, H. (2014) 'Qualitative Content Analysis: A Focus on Trustworthiness', SAGE Open, 4(1), p. 215824401452263. Available at: https://doi.org/10.1177/2158244014522633.

ERIC (2013) *Ethical Research Involving Children, ERIC, Child Ethics*, *Ethical Research Involving Children*. Available at: https://childethics.com/ (Accessed: 11 May 2024)

French, G. (2023) “Teaching and learning in the outdoors: the current state of outdoor learning in schools in Wales.”

Garden, A. and Downes, G. (2021) ‘A systematic review of forest schools' literature in England’, Education 3-13, 51, pp. 320–336. Available at: https://doi.org/10.1080/03004279.2021.1971275.

Harcourt, D., Perry, B. and Waller, T. (eds) (2011) Researching young children’s perspectives: debating the ethics and dilemmas of educational research with children. 1st ed. London; New York: Routledge.

Jerebine, A., Heering, T. and Barnett, L.M. (2024) ‘Educator-Perceived Barriers and Facilitators to Structured-Physical Activity in Early Childhood Centres: A Systematic Review’, Research Quarterly for Exercise and Sport, 95(1), pp. 243–262. Available at: https://doi.org/10.1080/02701367.2023.2193243

Kemp, N. and Josephidou, J. (2023) ‘Babies and toddlers outdoors: a narrative review of the literature on provision for under twos in ECEC settings’, Early Years, 43(1), pp. 137–150. Available at: https://doi.org/10.1080/09575146.2021.1915962

Kiviranta, L. et al. (2024) ‘Outdoor learning in early childhood education: exploring benefits and challenges’, Educational Research, 66(1), pp. 102–119. Available at: https://doi.org/10.1080/00131881.2023.2285762.

Kokkonen, J.-M. and V., H. and Abdollahi, A. and Paasio, H. and Ranta, S. and Erkkola, M. and Roos, E. and Ray, C. (2021) ‘Associations between parent–child nature visits and sleep, physical activity, and weight status among Finnish 3–6-yearolds’, Int. J. Environ. Res. Publ. Health, 18(23), p. 12426 (Accessed: 11 May 2024)

LeMasters, A.C. and Vandermaas-Peeler, M. (2021) 'Exploring outdoor play: a mixed-methods study of the quality of preschool play environments and teacher - perceptions of risky play', Journal of adventure education and outdoor learning, 23, pp. 1–13. Available at: https://doi.org/10.1080/14729679.2021.1925564.

Lin, X. and Li, H. (2018) 'Parents' play beliefs and engagement in young children's play at home', European Early Childhood Education Research Journal, 26(2), pp. 161–176. Available at: https://doi.org/10.1080/1350293X.2018.1441979.

Martin, A. et al. (2023) 'A qualitative study of parental strategies to enable pre-school children's outdoor and nature experiences during COVID-19 restrictions', Health, and place/Health & place (Online), 79, pp. 102967–102967. Available at: https://doi.org/10.1016/j.healthplace.2023.102967

McBurney, D. (1998) Research methods. 4th ed. Pacific Grove: Brooks/Cole Pub.

McHugh, T. et al. (2023) 'The Relationship Between Parental Knowledge, Attitudes, and Behaviors: Australian Primary School -Aged Children and Nature Experiences', Journal of adventure education and outdoor learning, pp. 1–18. Available at: https://doi.org/10.1080/14729679.2023.2220837

MIND (2023) *Mind, the mental health charity - help for mental health problems*, *Mind*. Mind. Available at: https://www.mind.org.uk/. (Accessed: 19 May 2024)

NHS (2023) *Children and Young people's Mental Health Services*, *nhs.uk*. Available at: https://www.nhs.uk/mental-health/children-and-young-adults/mental-health-support/mental-health-services/.(Accessed: 19 May 2024)

NSPCC Research Ethics Principles (2023). Available at: https://learning.nspcc.org.uk/media/3091/nspcc-research-ethics-principles.pdf. (Accessed: 19 May 2024)

Nolan, A., Macfarlane, K. and Cartmel, J. (2013) Research in early childhood. Los Angeles, Calif: SAGE. Ose, S.O. (2016) 'Using Excel and Word to Structure Qualitative Data', Journal of Applied Social Science, 10(2), pp. 147–162. Available at: https://doi.org/10.1177/1936724416664948

Puk, T. (2021) 'Nurturing embodied experience: risk-tolerant parental attitudes towards nature-based children's learning', Education 3-13, 51, pp. 200–211. Available at: https://doi.org/10.1080/03004279.2021.1957973

Puk, T.G. (2020) 'Healing the Ecological Self: Stop Peeing in the Drinking Wate, 1–500', Journal of Outdoor and Environmental Education, pp. 1–15. Available at: https://doi.org/10.1007/s42322-020-00073.

Research Integrity and Ethics (no date) *The University of Wales Trinity Saint David*. Available at: https://www.uwtsd.ac.uk/research/research-integrity-and-ethics (Accessed: 17 May 2024)

GOV.UK (2018) *Data Protection Act*, *Gov.UK*. Gov.UK. Available at: https://www.gov.uk/data-protection. (Accessed: 18 May 2024)

Sella, E. et al. (2023) 'Psychological Benefits of Attending Forest School for Preschool Children: a Systematic Review', Educational psychology review, 35. Available at: https://doi.org/10.1007/s10648-023-09750-4.

The General Data Protection Regulation (no date) *Business Wales*. Available at: https://businesswales.gov.wales/starting-up/further-guides/general-data-protection-regulation#guides-tabs--6 (Accessed: 17 May 2024).

UNICEF (2024) *UN Convention on the Rights of the Child (UNCRC)*, *UNICEF*. Available at: https://www.unicef.org.uk/what-we-do/un-convention-child-rights/.(Accessed: 14May 2024)

Walker, R. and Solvason, C. (2014) Success with your early years research project. London: SAGE Publications.

Welsh Government (2021). *Safeguarding | Law Wales*. Available at: https://law.gov.wales/safeguarding. (Accessed: 14 May 2024)

Wu, H., Ji, R. and Jin, H. (2023) 'Parental factors affecting children's nature connectedness', Journal of environmental psychology, 87, pp. 101977–101977. Available at: https://doi.org/10.1016/j.jenvp.2023.101977.

Zarouali, B. et al. (2024) 'Comparing Chatbots and Online Surveys for (Longitudinal) Data Collection: An Investigation of Response Characteristics, Data Quality, and User Evaluation', Communication Methods and Measures, 18(1), pp. 72–91. Available at: https://doi.org/10.1080/19312458.2022.2156489