A TEACHER'S PERCEPTION ON OUTDOOR PLAY IN EARLY YEARS EDUCATION IN WALES: WHAT ROLE DOES OUTDOOR PLAY HAVE IN CHILDREN LEARNING AND DEVELOPMENT?

Abstract

The aim of this study was to investigate kindergarten teachers' perceptions about outdoor play in Wales in the early childhood setting and to get a better understanding of them. As part of the study, it also explored the role that outdoor play has in children's development and learning. This information can then be used to enhance the early childhood curriculum in St. Vincent and the Grenadines based on these results. The study involved 15 teachers from three early childhood settings who participated in interviews, completed questionnaires, and were observed during the study. As an additional outcome, 15 children from the same 3 early childhood settings were interviewed and observed. By the end of this research, it is hoped that teachers and other persons will be able to recognize that outdoor play plays an influential role in the development and learning of children. The teachers in the study provided evidence that outdoor play is critical to the development of children, as well as the role it plays in their learning and development. Teachers have indicated that children should be allowed to take risks during risky play in order to learn and grow. However, the purpose of this study is to highlight the importance of outdoor play in children's learning and development. This is because of the lack of research that has been conducted on this topic. This research must be highlighted to promote outdoor play today. This study would involve both quantitative and qualitative methods of data collection. The research assignment concludes with ethical considerations that should be considered when doing research with children.

KEYWORDS: Outdoor play; quantitative and qualitative; triangulation; halo effect; hawthorne effect; confidentiality and anonymity

Introduction

Outdoor play is fast becoming a key instrument in the early years of children's learning. Every child in the world takes part in outdoor play, and early childhood education has included play in children's learning. One must admit that through play, children acquire knowledge of the world, learn to communicate their thoughts and feelings, and form relationships with other people. This is especially critical for their physical development and learning (Garrick, 2004). The definition of outdoor play used in this assignment is when a child engages in active-free play outdoors, or unstructured physical activity, in their free time (Veitch *et al.,* 2006).

There is no research regarding teachers' perceptions of outdoor play in early years Wales and St. Vincent and the Grenadines. However, there is not much research on other aspects of teachers' perception of risk play and rough and tumble play during outdoor play. An investigation was conducted into teachers' perceptions of outdoor play in children's learning and development. There is thus a need to explore teachers' perceptions of outdoor play in early years in Wales and St. Vincent and the Grenadines.

A teacher's perception on outdoor play

Children in their early years of learning are acknowledged to have both the need and the right to play outdoors. Children are presently involved in risky play. Obee *et al*. (2021) defined risky play as "thrilling and challenging forms of play that may cause physical injury and that may benefit children's development and health". This view is supported by Gyllencreutz *et al. (*2020) who writes that teachers said it was challenging to always watch over every student during risky play, especially if the schoolyards are huge. However, unlike Gyllencreutz *et al.* (2020)*; Storli* and Sandseter (2015); Little, Sandseter and Wyver (2012) argue that they believe children should have the opportunity to explore risk during play. The reason for this is that teachers believed that, when children acquired newly acquired abilities, they needed to take risks to enhance their skill development as well as build their confidence and learn how to prevent harm. For example, teachers would allow

children to climb very tall ladders to see the child's development in their motor sensory skills. In this way teachers are allowing children to take risks in developing their motor skills.

Previous studies have reported that children's outdoor play experiences are influenced by teachers' opinions, experiences, values, knowledge, and attitudes (Kelly, Sharpe, Fotou, 2022; LeMasters and Vandermaas-Peeler, 2021; Little, Sandseter and Wyver, 2012). For example, teachers based their views on their own reflection of outdoor play from their early childhood years. Several physical activities were conducted outside, including swings, slides, and other physical activities. However, over the past few decades, outdoor play has evolved into a much broader scope of activities than just those. Resources are required to help teachers in their advocacy work for the educational benefits of outdoor play for children. For example, teachers should be trained in outdoor play activities and have a wide range of knowledge on outdoor play and provisions on the outdoors (Ernst and Tornabene, 2012).

The above perceptions, however, only relate to how teachers view outdoor play and do not necessarily consider the educational value and role that outdoor play provides for children learning.

The role of outdoor play in children's learning

Many theorists such as (Froebel, 1782- 18852; Isaacs, 1885-1948; Vygotsky, 1978; Bruner, 1976 and Moyles, 1999 cited in Daly, Byers and Taylor, 2006 and Garrick, 2009) highlighted the importance of children playing outside and believed it was fundamental for their moral, intellectual, physical and social development. In their perspective, play is the highest level of learning because it enables children to put what they have learned into practice and connect what they have learned with how they feel. However, the Welsh Government has took into consideration the role of outdoor play in which they implemented the early years foundation stage (EYFS), this requires that each setting include an inclusive outdoor space and must provide and prepare daily outdoor activities,

was recently created by the government and places an emphasis on outdoor play and its significance in children's learning (Department for Education, 2021).

Furthermore, The Welsh Government (2009) states that children develop more socially, physically, creatively, culturally, and personally when they are outside. Children who have mastered these skills are better equipped to learn and remember what they have learned. However, children's physical, mental, social, and emotional health and wellness depend heavily on their ability to play (Maller, 2009). Children learn flexibility and resilience through play. No matter their disabilities, play is fundamental to all children. There are many opportunities for children to develop their motor functions, enhance their balance, and explore their physical potential in outdoor environments. The outdoors teaches children to recognize and experience danger, which leads to greater self-confidence and resilience (Welsh Government, n.d). Drake (2009) states that children's motor skills grow when they are outdoors. Therefore, teachers should encourage outdoor play in children's learning and development.

Furthermore, teachers believed that even though children have a right to play they believed that outdoor play environments should be designed in a specific layout to safeguard children while they are involved in outdoor play (Bilton, 2002 and Bilton *et al.,* 2008). On the other hand, teachers saw bad weather as a barrier to outdoor play, which is always seen in Wales. It is very difficult to be prepared for outdoor play when it starts to rain. According to Bilton *et al.* (2008) one solution for this would be to prepare activities that can be done while it rains.

This assignment aimed to answer the research question: ‘what are teachers’ perceptions of outdoor play?’ and ‘What role does outdoor play have in children's learning and development?’. As a result of this assignment, the researcher hopes to make a positive impact on children's outdoor learning and development in St. Vincent and the Grenadines.

Methodological Considerations

A total of 30 samples were taken for this assignment. This involved 10 early childhood teachers working in 3 schools across Wales and 20 children ranging from the ages of four to seven in these schools. Since obtaining a large amount of data during research is expected to be difficult, and transportation to the different sites can be expensive, a small sample was chosen. Furthermore, the researcher will be able to obtain background information on outdoor play in 3 different schools in Wales, which will prove useful for comparing and contrasting the results.

This research assignment will be using **probability sampling** which would allow the researcher to provide an accurate representation of the population. In this study, simple random sampling would be used. The definition of this type of sampling according to Mac Naughton, Rolfe, and Siraj-Blatchford (2010) is that every member of the population has the same probability of being selected. This type of sampling was chosen because this would allow the researcher to be limited to bias in selecting participants for the research.

The methodological approach taken in this study is a **mixed research** method based on both **qualitative** and **quantitative** data that will be collected during the research. According to Roberts-Holmes (2018) the term "mixed methods" refers to research methods that combine qualitative and quantitative approaches. As a result, the researcher would have a large amount of data to work with in order to answer the research question. Pickell (2021); Creswell and Plano Clark (2008) and Creswell (2014) define qualitative and quantitative data. Quantitative data can be expressed with numbers, counting, and measures while qualitative data are also categorized by traits and characteristics in addition to being descriptive and conceptual. For the researcher

to obtain qualitative and quantitative data from participants, questionnaires, interview and observation would be used for this research assignment.

Throughout this research project, **triangulation** will be used to gain a better understanding of teachers' perceptions of outdoor play and the role outdoor play plays in children's development. The word triangulation can be defined as the application of a variety of research techniques to improve comprehension of a research problem (Roberts-Holmes, 2018). However, to gain an understanding of outdoor play, this study would utilize interviews, questionnaires and observations, and the researcher would be able to see what is being done during observation that matches what was said during the interview process and gathered from the questionnaires. This would provide valid and reliable data to the researcher. However, while triangulation would be involved in the research assignment there can still be bias in the research.

INTERVIEW

During the design of the research survey was considered however interview was considered for this research because interview adaptability is a significant advantage when used in research. An excellent researcher may explore the interviewee's non-verbal communication by following up on answers. The way an answer is given—including the voice tone, facial expression, hesitation, and other factors—can reveal information that an answer would normally hide. A survey, however, cannot achieve this goal. Results from surveys must be taken as they are, but interview responses can be explained and expanded upon (Bell and Waters, 2018). Interviews are a type of data collection that entails the exchange of information between two or more persons through a sequence of questions and replies (Newby, 2014).

The assignment will include an **unstructured interview**. An unstructured interview provides participants with the opportunity to discuss their perceptions in detail, which is the most effective way to understand teachers' views on outdoor play (Mukherji and Albon, 2018). In these types of interviews, the interviewer and interviewee conduct a conversation instead of asking standardized questions. This type of interview would be

used instead of a focus interview. According to Cohen *et al.* (2000) and Winwood (2019) focus-group interviews are ones where participants are interviewed as a group as opposed to one at a time. Participants in the interview group are selected based on their interest or participation in the study and reflect a variety of viewpoints. However, this type of interview may lead to confidentiality and anonymity being breached (Coe *et al., 2021).*

In addition, it is possible for the researcher to develop the **halo effect** when interviewing teachers and children. This is seen as one limitation in using interviews for research methods. It has been argued that the halo effect is a cognitive bias in impression formation (Cohen *et al.,* 2000). In this situation, the general assessment of a person's traits is based upon the evaluation of the quality of a particular characteristic (Nisbett and Wilson, 1977 cited in Gabrieli *et al.,* 2021).

OBSERVATION

For the purpose of this assignment, observation was used to observe children and teachers during outdoor play. Ihmeideh and Al-Qaryouti (2016) conducted a study in Oman which examined kindergarten teachers' perceptions of children's outdoor play environments as well as their roles as educators. Both the perspective of the children and that of the teachers was gathered through observation. The researcher would be using naturalistic observation for the chosen method. Mukherji and Albon (2015) states that This type of observation involves the observer conducting the study in the participant's everyday environment, which in this case is a school. This is because children would feel more comfortable being observed in a familiar environment. One limitation to using this method is that observers must write down everything they see and hear as it happens and during this stage, they can miss something that happens. However, observation can be recorded with a camera and reviewed later by the observer.

During observation of children the **mosaic approach** would be introduced. This is because children have a right to be included in their research. The mosaic approach

symbolizes the blending of many viewpoints to give a picture of children's private and public worlds. In the Mosaic approach, interactive technologies are used in conjunction with the established methodology of observation and interview. Children utilize cameras to document the significance of the site; they conduct a tour and decide how it will be documented; they also prepare maps based on their photographs and drawings. For the mosaic to be completed, each tool must be employed (Clark, 2011). According to article (12) of the **United Nations Convention on the Rights of the Child (UNCRC, 1989)** Children who are capable of forming their own opinions should have the right to express them freely in matters affecting them, commensurate with their age and maturity. It is the right of children to participate in research pertaining to outdoor play where they can express their opinions. This type of approach would be used in this research assignment to gain a better understanding of children's outdoor play views.

By knowing that their actions are being recorded or examined, the **Hawthorne effect** can alter a subject's usual behavior (Oswald, Sherratt and Smith, 2014). This is when the participants change their normal routine and do something completely different. As a result of observing individuals, a researcher may not receive reliable and valid information. In order to gain valid and reliable information through observation, a researcher could observe the children and teachers for two days a week for two months. This is in order to gain an understanding of their perspectives on outdoor play. This would allow all individuals involved in the research to feel comfortable being observed. It may be possible to record video clips and take photographs as part of the observation process.

QUESTIONNAIRE

For the purpose of this research assignment a questionnaire was used to gain information from teachers on their perceptions of outdoor play. This questionnaire would contain a series of **open-ended questions** and **closed-ended questions**.

When a researcher uses closed-ended questions with a questionnaire they receive a high level of responses which can be used to analysis and give statistics. These types of

questions also allow the participant to answer quickly and easily (Newby, 2014). These data collected would allow the researcher to make comparisons across a broad range of participants. However, since respondents cannot add any comments, qualifications, or explanations to closed-ended questions, the categories may not be complete or biased (Oppenheim, 1992 cited in Cohen, Manion and Morrison, 2018).

However, with open-ended questions the participants have an opportunity to write their personal comments in addition to what was stated on the questionnaire allowing the respondent to go more in depth (Mukherji and Albon, 2018). These types of questions give you a rich understanding of the research topic and the researcher can get to quote direct quotes from the interviewee (Newby, 2014).

Researchers can use questionnaires to collect information from small groups of people, which can serve as a starting point for defining a problem, followed by in-depth research findings. (Coe *et al., 2021)*. However, this approach is that respondents can interpret the questions in a different manner therefore, the researcher must ensure that each question is short and ensure that there are no **double-barreled questions** (Brown and Dowling, 1998). Startquestion (No Date) states that when the respondent is unable to give a precise response at one point in the questionnaire, the question becomes double-barreled, also known as double-direct, double-ended, or compound. These types of questions can confuse respondents.

Ethical Considerations

It is imperative to consider several ethical considerations when conducting research. Participants and information collected during the research are protected by these considerations. Whenever research is conducted with children there are high ethical standards that must be observed.

Prior to participating in this research project, participants should give informed consent. According to Mukherji and Albon (2018) and Burgess (1989) **informed consent** is when the participants have given their consent to be part of the research and have fully understood the research they would be involved in. A voluntary participation policy and an explanation of the study's purpose should be provided to both teachers and students (McNamee and Bridges, 2002). In order to accomplish this, the researcher must first get the ethics committee's approval of the proposal. Then, the researcher can present the outline of the research question to the headteacher of each school participating in the study. Further, the researcher can present the devices used in the study for collecting data as well as the implications of the research question. Thirdly there should be a consent form given to teachers who would be in the research assignment lastly, assent form and permission letters must be given to children who can sign on their own behalf and to parents to sign on behalf of their who cannot sign. Ethical Research Involving Children (ERIC) (n.d) states that consent must be freely given without being coerced in order to be valid. Moreover, researchers need to recognize when children are not interested in participating in research, such as crying, turning away, and becoming distant and quiet. Furthermore, it is therefore possible for a child who consents to take part in a research project to change their mind and withdraw their consent at a later date. Parents or caregivers can withdraw their children from participation if they no longer wish them to do so. To ensure that children and their families remain willing to participate, researchers should periodically check with them and their families. If a participant wishes to withdraw from the study, they may do so at any time. Participants should be made aware of this at the start of the study.

According to the University of South Australia (n.d.) on the **participant information sheet**, the researcher informs the participants what the purpose of the study is, the tasks they will perform, and the degree to which they will be involved in the study.

Gov.uk (2022) states that it is pertinent for participants to understand the following in order to give their permission to be informed about the study they would be taking part in:

Who is conducting the study?

- Participants can withdraw their consent or stop participating.
- The length of time for which their data will be kept.
- It is important for them to know what their rights are and how they can complain about them.
- The purpose of your research, what information you will collect, how you will conduct the research, and how the results will be used will be described in your proposal.

Additionally, you should inform the participants:

- If the session is being watched (and who is watching it)
- There is a possibility of recording the session and how it will be recorded

Participants must also know how their personal data will be handled, including:

- If any additional organizations will be processing the data, inform the participant.

The British education research association (BERA) (2018) stipulate that it is essential that a participant's identity should not be revealed, unless that participant specifically chooses to be identified, so names of participants should be changed, and any details that could make the setting or participant recognizable should not be disclosed. **Anonymity** is one method for addressing privacy and protecting against harm. An example of a practical way for researchers to ensure anonymity among participants would be to use questionnaires. Questionnaires usually do not include a person's name, just their gender.

The researcher is responsible for ensuring that the **confidentiality** of the participants is protected during the research process. The information that is provided about participants is confidential. Throughout all stages of the research cycle, researchers should take steps to protect the confidentiality of their participants in order to fulfill their responsibility (ERIC, n.d). A participant's right to privacy can be protected through the promise of confidentiality: not disclosing information that could identify or trace that individual (Cohen, Manion and Morrison, 2018). This can also mean not discussing an individual with anyone else or sharing information in a form that can identify individuals.

Risks to participants

There are several factors that researchers should consider before conducting a research study. These factors include the possibility of **participant vulnerability**, **the sensitivity of the research topic**, and the **appropriateness and acceptability of the research methodology**. During research, suppressed feelings and memories might resurface, or hidden feelings and memories might be revealed (ERIC, n.d). Given the circumstances in which the data collection will take place, the participant is likely to have a huge responsibility for data collection. This is because of the risk of participants becoming distressed and the risk that they may suffer harm as a result of the distress. To minimize harm, researchers should consider how to minimize data collection (by taking breaks or leaving gaps between data collection), how to ensure participants are prepared for participation (as part of informed consent), and how to provide contact information or support services to mitigate the risks associated with participation (Barnard, Drey and Bryson, 2012). Furthermore, for example when interviewing children instead of asking them a question which can lead to psychological harm the interviewer can ask the child to draw the area where they feel the safest. Any known harm that might result from the conduct or reporting of the research should be disclosed to participants (or their guardians or other responsible parties). Participants should be immediately informed of any unanticipated harm that happens to them during the research, as well as their guardians or other responsible parties as necessary (BERA, 2018). However, during research or other unsupervised contact with children through the University requires an enhanced Disclosure and Barring Service check (University of Wales Trinity Saint David) (UWTSD) (2022).

Risks to researcher

It is the goal of the ethical review procedure to protect research participants. It is acknowledged, however, that conducting a study may involve risks for a researcher or research assistant.

There are risks involved when researchers conduct interviews in isolated, high-risk locations, deliver questionnaires to people in high-risk zones, and conduct research in countries with high levels of crime. These risks can put the researchers' lives at risk

(University of Waterloo, n.d). Having said that, the researcher should be aware that before beginning their work in a particular area of research, he/she must first conduct a thorough examination of the field of research before beginning their research. Researchers may also suffer financial and legal harm as well as distress or upset during their research (Barnard, Dray and Bryson, 2012). However, researchers should conduct risk assessments before the start of their research. This would allow the researchers to have an idea of what risks/harms that can be expected during his/her research (ERIC, n.d and UWTSD, 2022).

Risks to university

Conducting research involves several legal risks, including the possibility of an offence by the participant, researchers, or university; the possibility of a participant revealing criminal activity to a researcher, which would require the researcher to contact law enforcement; the possibility of suing the researcher or university for damages to their reputation furthermore this can lead to financial risk to the university. Additionally, in the case of reputational harm, a university's image or reputation may be damaged among potential donors, peers, and/or members of the general public, thereby harming its image or reputation (University of Essex, 2022).

In research, researchers must know who they should contact if they uncover any risks or harms during their study. Participants in the study should remain anonymous and confidentiality should be maintained (Oliver, 2010). Research must adhere to ethical standards, including informed consent, the right to withdraw, and confidentiality. Ensure that every research finding is accurately and unbiasedly analyzed (Early Education, n.d).

BERA (2018) states that using an anonymous and confidential approach to protect participant data is well established in research. Additionally, researchers must respect participants' rights to confidentiality and anonymity, as well as institutions' and individuals' privacy. In any publication of original works or other contributions, researchers should acknowledge participants' rights to anonymity. Participants may expressly and freely waive their right to confidentiality and anonymity. Whether it is on their own behalf or on behalf of their parents, guardians, or other responsible parties. The Data Protection Act (1998), which was established in the UK and provides guidelines for the storage and use of personal data, mandates that researchers adhere to certain rules.

According to the Data Protection Act (2018) individuals have a right to information about how and why their personal data is held, as well as the purposes for which it may be used and the recipients of such information. Researchers are expected to get participants' informed consent before disclosing personal information to third parties

and to make sure that those parties are authorized to access that information. Researchers should ensure that the information cannot be accessed by anyone who is not authorized to do so. Research data must be kept in the university's managed environment, which provides protection against data breaches, unauthorized access, and modification for the duration of storage (as defined by GDPR in the UK). It is imperative that the University's cybersecurity policies are followed in this regard (UWTSD, 2016).

Reference List

Barnard, M., Drey, N. and Bryson, C. (2012) *NSPCC Research ethics committee*. Available at: file:///C:/Users/temar/Downloads/research-ethics-committee-guidance-applicants-2.pdf (Accessed: 25th October 2022).

Bell, J. and Waters, S. (2018) *Doing your research project: a guide for first-time researchers*. 7th edn. London: Open University Press.

BERA (2018) *Ethical guidelines for educational research.* 4th edn. London: British Educational Research Association.

Bilton, H. (2002) *Outdoor play in the early years.* 2nd edn. Abingdon: David Fulton Publishers.

Bilton, H. *et al.* (2008) *Learning outdoors: Improving the quality of young children's play outdoors.* Abingdon: Routledge.

Brown, A. and Dowling, P. (1998) *Doing research/ reading research*. London: Routledge Falmer.

Burgess, R.G. (1989). *Ethics of Educational Research*. East Sussex: Falmer Press.

Clark, A. (2011) *Ways of seeing: using the Mosaic approach to listen to young children's perspectives.* Available at: file:///C:/Users/temar/Downloads/Chapter%20by%20Alison%20Clark%20Listening%20ot%20Children%20.pdf (Accessed: 20th October 2022).

Coe, R. *et al*. (2021) *Research methods & methodologies in education*. 3rd edn. London: Sage.

Cohen, L. et al. (2000) *Research Methods in Education*. 5th edn. New York: Routledge.

Cohen, L., Manion, L. and Morrison, K. (2018) *Research Methods in Education*. 8th edn. London: Routledge.

Creswell, J.W. and Plano Clark, V.L. (2008) *The mixed methods reader*. Thousand Oaks, Calif: Sage Publications.

Creswell, J.W. (2014) E*ducational research: planning, conducting and evaluating quantitative and qualitative research*. 4th ed. Pearson Education International.

Daly, M., Byers, E. and Taylor, W. (2006) *Understanding early years theory in practice*. Oxford: Heinemann Educational Publishers.

Department for education (2021) *Statutory framework for the early years foundation stage: Setting the standards for learning, development and care for children from birth to five.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974907/EYFS_framework_-_March_2021.pdf (Accessed: 15th October 2022).

Drake, J. (2009) *Planning for children's play and learning*. 3rd edn. Abingdon: Routledge.

Early Education (No Date) 'Code of ethics', *The British Assocation for Early Childhood Education.*

ERIC (No Date) *Ethical guidance: privacy and confidentiality.* Available at: https://moodle.uwtsd.ac.uk/mod/folder/view.php?id=444763#:~:text=ERIC%2Dcompendium%2DEthical%2DGuidance%2DPrivacy%2Dand%2Dconfidentiality%2Dsection%2Donly.pdf (Accessed: 21st October 2022).

ERIC (No Date) *Ethical guidance: harms and benefits.* Available at: file:///C:/Users/temar/Downloads/ERIC-compendium-Ethical-Guidance-Harm-and-benefits-section-only.pdf (Accessed: 21st October 2022).

ERIC (No Date) *Ethical guidance: informed consent.* Available at: file:///C:/Users/temar/Downloads/ERIC-compendium-Ethical-Guidance-Informed-consent-section-only.pdf (Accessed: 21st October 2022).

Ernst, J. and Tornabene, L. (2012) 'Preservice early childhood educators perceptions of outdoor settings as learning environments', *Environmental Education Research.* DOI:10.1080/13504622.2011.640749.

Gabrieli, G. *et al*. (2021) 'An analysis of the generalizability and stability of the halo effect during the COVID-19 pandemic outbreak,' *Frontiers in psychology.* DOI: https://doi.org/10.3389/fpsyg.2021.631871 .

Garrick, R. (2004) *Playing outdoors in the early years.* London: Continuum International Publishing Group.

Garrick, R. (2009) *Playing outdoors in the early years*. 2nd edn. London: Continuum International Publishing Group.

Gov.uk (2018) *Data protection act.* Available at: https://www.gov.uk/data-protection (Accessed: 23rd October 2022).

Gov.uk (2022) *Getting informed consent for user research*. Available at: https://www.gov.uk/service-manual/user-research/getting-users-consent-for-research (Accessed: 21st October 2022).

Gyllencreutz, L. *et al.* (2020) 'Injury risks during outdoor play among Swedish schoolchildren: teachers' perceptions and injury preventive practices', *Education 3-13*, 48(1), pp. 1-11. DOI: 10.1080/03004279.2018.1551912

Ihmeideh, F.M. and Al-Qaryouti, I.A. (2016) 'Exploring kindergarten teachers' views and roles regarding children's outdoor play environments in Oman', *Early Years*, 36(1), PP. 81-96. DOI: 10.1080/09575146.2015.1077783

Kelly, S.K., Sharpe, R.M. and Fotou, N. (2022) 'Early years and key stage 1 teachers' attitudes towards outdoor and online play', *Education 3-13*, pp. 1–14.

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*, pp. 1–13. Available at: https://doi.org/10.1080/14729679.2021.1925564.

Little, H., Sandseter, E.B.H. and Wyver, S. (2012) 'Early childhood teachers' beliefs about children's risky play in Australia and Norway', *Contemporary issues in early childhood*, 13(4), pp. 300–316. Available at: https://doi.org/10.2304/ciec.2012.13.4.300.

Mac Naughton, G., Rolfe, S.A. and Siraj- Blatchford, I. (2010) *Doing early childhood research*. 2nd edn. Maidenhead: Open University Press.

Maller, C.J. (2009) 'Promoting children's mental, emotional and social health through contact with nature: a model', *Health education,* 109(6), pp. 522–543. Available at: https://doi.org/10.1108/09654280911001185.

McNamee, M. and Bridges, D. (2002) *The ethics of educational research*. Oxford: Blackwell Publishers Ltd.

Mukherji,P. and Albon, D. (2015) *Research methods in early childhood.* 2nd edn. London: SAGE Publications Ltd.

Mukherji, P. and Albon, D. (2018) *Research methods in early childhood*. 3rd edn. London: SAGE Publications Ltd.

Naughton, G.M., Rolfe. S.A. and Siraj- Blatchford, I. (2010) *Doing early childhood research*. 2nd edn. Maidenhead: Open University Press.

Newby, P. (2014) *Research methods for education*. 2nd edn. Abingdon: Routledge.

Obee, P. *et al*. (2021) 'Lessons learned from Norway on risky play in early childhood education and care (ECEC)', *Early childhood education journal*, 49(1), pp. 99–109. Available at: https://doi.org/10.1007/s10643-020-01044-6.

Oliver, P. (2010) *The student's guide to research ethics. 2nd edn.* McGraw-Hill: Open University Press.

Oswald, D., Sherratt, F. and Smith, S. (2014) *Handling the hawthorne effect: the challenges surrounding a participant observer*

Pickell, D. (2021) Qualitative vs Quantitative Data – What's the Difference? Available at: https://www.g2.com/articles/qualitative-vs-quantitative-data (Accessed: 17th October 2022).

Roberts-Holmes, G. (2018) *Doing your early years research project*: a step-by-step guide. 4th edn. Thousand Oaks: SAGE Publications.

Startquestion (no date) *Double-Barreled Questions Examples – Learn How to Avoid Them!* Available at: https://blog.startquestion.com/double-barreled-questions-examples/ (Accessed: 24th October 2022).

Storli, R. and Sandseter, E.B.H. (2015) 'Preschool teachers' perceptions of children's rough-and-tumble play (R&T) in indoor and outdoor environments', *Early child development and care*, 185(11-12), pp. 1995–2009. Available at: https://doi.org/10.1080/03004430.2015.1028394.

UNCRC (1989) *United Nations Convention on the Rights of the Child.* Available at: https://www.unicef.org.uk/wp-content/uploads/2010/05/UNCRC_united_nations_convention_on_the_rights_of_the_child.pdf (Accessed: 20th October 2022).

University of Essex (2022) *Research risk assessment.* Available at: https://www.essex.ac.uk/student/postgraduate-research/research-risk-assessment (Accessed: 23rd October 2022).

University of South Australia (No Date) *Participant Information Sheet Guidelines*. Available at: https://i.unisa.edu.au/staff/research/research-ethics/human-research-ethics/getting-started/participant-information-sheet/ (Accessed: 23rd October 2022).

University of Wales Trintiy Saint David (2016) *Research Data Management Policy*. Available at: https://www.uwtsd.ac.uk/media/uwtsd-website/content-assets/documents/strategies-policies/RDM-Policy-2022-v3-28-04-22.pdf (Accessed: 26th October 2022).

University of Wales Trinity Saint David (2022) *Research Ethics & Integrity Code of Practice.* Available at: file:///C:/Users/temar/Downloads/REICoP-July-2022-1.pdf (Accessed: 25th October 2022).

University of Waterloo (No Date) *Risks to researchers*. Available at: Risks to researchers | Research | University of Waterloo (uwaterloo.ca) (Accessed: 23rd October 2022).

Veitch, J. *et al*. (2006) 'Where do children usually play? A qualitative study of parents' perceptions of influences on children's active free-play', *Health & place,* 12(4), pp. 383–393. Available at: https://doi.org/10.1016/j.healthplace.2005.02.009.

Welsh Government (n.d) *A curriculum for funded non-maintained nursery settings.* Available at: https://www.earlyyears.wales/sites/default/files/a-curriculum-for-funded-non-maintained-nursery-settings2.pdf (Accessed: 12th October 2022).

Welsh Government (2009) *Foundation phase outdoor learning handbook.* Available at: https://hwb.gov.wales/storage/fcb8539c-9be7-4883-8542-35d7b54b56f2/foundation-phase-outdoor-learning-handbook.pdf (15th October 2022).

Winwood, J. (2019) *Practical research methods in education*. 1st edn. London: Routledge.