

## **Abstract**

A research project designed for researchers to explore and evidence the impact of outdoor learning on the development of the child. Mainly led through purposeful observation and supporting questionnaires completed by parents or carers of the child. This aim is to support the family's knowledge and awareness to access and encourage outdoor play, activities, and guide practitioner's curriculum more effectively.

## **Literature Review**

### **Does Outdoor play support the Development of a child.**

The Early years foundation stage (EYFS) is an educational framework that has been developed to support schools and practitioners in developing a vision for children and young people (Welsh Government 2020). Welsh Government (2020) encourages practitioners to allow children to explore and make sense of their experiences, knowledge and skills that will help learners develop and understand why. The curriculum should promote the children to become ambitious, enterprising, ethical, and healthy learners. Estyn (2011) suggests that children below the age of five develop and learn quicker with outdoor lessons. In a report carried out by Estyn (2011) they highlight that schools and settings need to plan to achieve outdoor activities across all areas of learning and skills. These are to encourage the development of children's skills in reading, writing, Information Technology, creative development, and personal awareness of cultural diversity. This makes a good link towards the aims outlined in EYFS framework and how purposeful planning towards outdoor learning can benefit children's development.

Bruce (2020) explains that the Froebelian approach begins with practice and observing. This encourages practitioners to support and extend the child's interaction with a particular task. Bruce (2012) also points out that natural curiosity with innocent joy, fun and play gives children the desire to learn and be more creative. This research project is predominately focused on carrying out observation led planning in partnership with parents which is are closely linked to the Frobel idea of learning. The observations will be catching data of a child's ability and development through opportunities in outdoor play (Tovey 2013).

Outdoor learning has become increasingly explored in Wales within the school curriculum. Practitioners have taken the Forest school approach originated in Scandinavia which is a way of teaching children about the natural world quite literally a school in the forest (Tebbs 2022). The Forest School Evaluation Project Report-Study in Wales (2003) evidenced that school activities carried out in the outdoors has a positive development for children's self – confidence, self- esteem, team working, motivation, pride in and their understanding of surroundings. This makes a strong link to the expectations the EYFS framework setting out that children's experiences should make a positive learning understanding of environments around them (Welsh Government 2020). The Scandinavian concept of outdoor school, known as 'Udeskole,' takes place in natural and cultural settings. The teachers will

draw their attention to the history and development of the local community and create links back to their local school and community providing them with their ethnical background. The Udeskole teaching strategies tend to be specifically focused on subjects to support the curriculum areas. The teacher would instruct the children to measure and calculate the volume of trees supporting mathematics and design and create a poem about the nature they see before them supporting literature skills (Bentsen 2013). Barnes (2018) explains this a cross – curricular approach making connections in the learning environment through the child's lives supporting them to become more involved in decision making. Cross – Curricular supports the genuine motivation, engagement at the core of its meaningful learning for children. Furthermore, this links with the implementation of the Early years foundation stage curriculum (EYFS) and the Curriculum for Wales and the four purposes.

In September 2022, early years settings in Wales will now be implementing the new Curriculum for Wales alongside the existing Welsh Foundation Phase Framework. Welsh Government (2020) new curriculum provides guidance for practitioners on learning for children in Wales aged 3 -16. This article will focus on how it applies to nursery and preschool children. The differences between the existing framework and the new curriculum are:

- New purposes of the new curriculum.
- The subjects (from the old school curriculum) have been replaced with six Areas of Learning.
- Practitioners will have to be more flexibility to be creative in their teaching.
- Stages have been removed in favour of a seamless curriculum.

It was established by law in the Curriculum and Assessment (Wales) Act 2021. In early years, it is planned for use by funded non-maintained nurseries in Wales. Nurseries are allowed to design their own curriculum if it meets requirements set out in the Curriculum and Assessment (Wales) Act 2021 (Welsh Government 2020).

According to Maynard and Waters (2014) the foundation phase encourages children to be given opportunities first hand and to experience play and active involvement as opposed to completing work in exercise books. Through this active involvement children get to understand firsthand how things work, and problem solve naturally. Therefore, play is a powerful tool in child development and the outdoor risky play contributes to their growth and well-being (Brussoni 2012). Ouvry and Furtado (2020) also believe that the outdoors is beneficial to a child's health and well-being. Children have lots of energy and need to be able to move freely using their energy and to be active. Bilton (2010) agrees that opportunities to simply be outside in the fresh air, sunshine, day light and play with peers is beneficial to a child's health and well-being.

Outdoor play may come with many positives however, research was carried out in Scotland called The Outdoor Learning Hub: A Scottish Attainment Challenge Innovations Fund Project that reported minimal progress to children academically.

Harvey *et al* (2017) claims that even though there was higher engagement from children whilst engaging in playground games that involved maths or literacy the children stayed at their current performance levels.

Ulset *et al* (2017) implies that there is a critical threshold of outdoor time and that when a child meets or exceeds this, they experience positive developmental effects. In addition, children who have more outdoor time tend to exhibit better attention skills and may support their development in this area. Therefore, questionnaires to parents will help support in gathering data on children that are exposed to free outdoor play outside of school attendance.

In conclusion, the research and evidence highlighted draws greater attention to the importance of outdoor learning. Therefore, the research project will explore observations on children using outdoor play in promoting their development through EYFS curriculum.

## **Methodology**

### **Sample Type**

This project will need to be carried out within four early years settings in the north, east, south, west of Cardiff. The age range selected for this project is to be sampled on children between the ages of three and five. The average ratio guidelines of children to adults in an early years setting of children of this age group since September 2023 was increased from 1:4 to 1:5. Therefore, it is expected that there are three early years practitioners to a setting allowing 15 children to attend a morning and afternoon session. These sessions are split up into two-, two- and half-hour sessions (Gov.uk 2023). This calculates to a sample of potentially 30 children each day to explore observation opportunities with.

The time in which this project will last will be up to the practitioner taking proactive action on the data reported. They will need to notice when they feel that are repeating data recorded or notice when data they are reporting has already been collected. This can be described as theoretical situations, a person being aware of knowing when to stop observation (Cohen *et al* 2018). This will reduce the cost and obtain more robust results using a realistic amount of time to gain information. This sample of children will give a non – probability result as the facility and development of children will vary in each setting. This random selection of samples taken from opposite ends of the city will minimise selection bias (Wyse *et al* 2017).

The practitioners are expected to carry out random sampling within these 30 children. The task does not need to be the same task or same child every time. Therefore, each child is equally likely to be selected at any time (Core concepts in research 2018).

### **Qualitative and Quantitative reflection on chosen methods.**

One of the methods considered to be the most effective in gathering information in understanding what children gain from outdoor play are through observations. Un

structured observations are to take place and supported with the practitioner taking field notes (Cohen et al 2018). The three members of staff carrying out these observations will need to be a qualified teacher or early years practitioner alongside two teaching assistants or early years support workers. The two-supporting staff members are required to have a minimum of level 3 childhood/child development qualification. The importance of this is so their observations are in line with a typical child development milestone and can effectively report their findings from outdoor play exposure (Gov.uk 2023).

Observations are required to be un-structured and carried out at random in the morning and afternoon sessions. Implementing this method will allow the information being gathered to be qualitative results of data. Bell and Waters (2018) suggest that researchers adopt a qualitative approach to allow them to have more of a perspective and understanding of the individual's perception of the world. Therefore, the practitioner using observations means they will have good quality information gathered from watching, analysing children's natural responses to nature, and learning resources/opportunities outdoors. In addition, using a qualitative approach allows the observer to understand the child's initial impression and manipulation of a task and see how they progressed and adjusted with routine engagement over a specific period (Walker *et al* 2014).

According to Nolan (2013) the time, duration, frequency of the observations are recorded as well as any formats, frameworks and schedules being considered. Alongside this all practitioners employed to work with the children in these sessions are to take part in the observation process. Nolan (2013) also explains that this approach is known as participant observation. Therefore, all practitioners have the responsibility to make a record of their reflections, field notes and interpretation of what was observed.

Schwartz *et al.* (2013) points out that if a participant is aware they are being observed their behaviours may be affected, better known as the Hawthorne effect. In reflection this could mean if the child is aware on that day of being observed, their performance and behaviour in engagement could be affected. The Hawthorne effect is a behaviour change because of the awareness of being observed and may alter the accurate observation. It may be likely the child may over commit to a task or increase the time spent on a particular task (Rezk et al. 2021). Jennifer Sumsion et al (2010) suggests that observations can only provide the observer with insights into what the child's experience in a very limited and restricted sense. Observation done effectively is however purposeful for developing an understanding of children's perspectives on their experience's and not for diagnostic purposes. Therefore, this showed there maybe limitations on just doing observations and was considered beneficial to have an additional method of information gathering.

Parents and carers will be encouraged to contribute to the information gathering by supporting the completion of a questionnaire. A questionnaire is a series of questions

that will be created to collect information from parents so the researcher can learn about the behaviour, knowledge, opinion, attitude, and beliefs regarding outdoor learning (Ranganathan and Caduff 2023). The questionnaire will be accessed via a quick response (QR) code or offered as a paper copy at the early years setting. A QR code is a two –dimensional code that any smartphone can scan and will take you to a site address that will present the questionnaire (Digital Gov 2023). The reason for the parents and carers questionnaire is so there is a deeper analysis of the attitudes of parents towards outdoor activities (Newby 2014).

A questionnaire is described as quantitative research and is more targeted to a larger sample size of the population. It would be suggested that both parents and carers of the child complete the questionnaire separately so if there are differing views this data will be captured. The data gathered through quantitative research involves measurable numeric data, questionnaires, surveys with rating scales (Sreekumar 2023). Turner *et al* (2017) believes that using both quantitative and qualitative through mixed method research combines different methodologies which then provided better answers to research. Two of the three questions created for the questionnaire will be presented in a way of measuring change. This is known as a Likert scale, with questions numbered 1 –5 that will rank their current perception on outdoor learning. This in turn will identify the area that will need targeting in an action plan (Evaluation Support Scotland 2019). The third question will be a closed question with only a yes or no answer requirement. Forsaith (2023) explains that closed questions are known as close –ended questions and only allows limited answers like yes or no. The question for this project the researcher would like to know is if parents and carers feel confident with encouraging outdoor play and opportunities for their child's holistic development. This type of closed question will support data with the number of parents who are and are not confident about outdoor play and opportunities.

After the questionnaires are completed and returned the data will be examined to outline what kind of awareness, support, hints, and tips are required to encourage outdoor play. Parents and carers will be provided with a generic pack of leaflets, groups and services signposting them to outdoor facilities within their borough. They will also be given an opportunity to seek further support from the early years practitioners to explore the developmental prospects in line with the early years curriculum if they deem it necessary.

The purpose of gathering this data is to build a picture of the community awareness of outdoor opportunities for children aged 3-5 that parents and carers can access. An equally important parts of data was understanding a parent and carers confidence taking a child out to effective outdoor learning opportunities or facilities.

### **Other methods considered**

Interviews are also another way of gathering qualitative research however are very structured in the way they are delivered (Levashina, J. *et al.* 2014). Interviewing has become the most common forms of research methods however this approach comes

with a huge number of different views. Interviews are led through conversation and to be thought to be a much broader method of research (Brinkmann 2022). Interviews were not selected for this project based on the reflection of the research needing to be very defined answers. The views of the parent and carers are required to only capture data of their child's exposure of outdoor learning and the parents/carers awareness of local outdoor play and learning facilities.

### **Following data collection**

Once all the data is gathered there is a requirement to explore all observation notes and numeric data from questionnaires. This is part of the project where the researcher will compare different data and methods used and see if they corroborate one another, known as triangulation (Bolshaw and Josephidou 2019). Heale and Forbes (2013) maintain that triangulation is the use of more than one research approach with the objective in increasing the confidence and confirmation in the project. Triangulation can help explore and explain human behaviours by using a variety of methods to help in providing a balanced explanation of data recorded.

There are four proposed types of triangulations which include data triangulation, investigator triangulation, theory triangulation and methodological triangulation. Methodological triangulation is suggested in this project collecting data from questionnaires and observations (Noble and Heale 2019). Casey and Murphy (2009) claim that methodological triangulation can also be sequential or simultaneously used. This means that it can be used in a chronological order and when one method is being used it advances to the other method. Therefore, this means observations will simultaneously be used from the first day of term and the questionnaires will follow once the child and parent relationship is built with the early year's practitioners.

## **Ethics**

### **What is ethics in childhood research?**

Gates (2022) explains that research ethics refers to a set of guidelines designed to govern the responsible conduct of research. This objective is to prevent false or altered research results. Research ethics in education aims to develop students' responsibilities and promote their awareness in research ethics. It ensures that students understand the importance of ethical conduct in research, including voluntary participation, informed consent, and safeguarding participants' rights (Huang and Wang 2023).

Hamilton *et al.* (2018) claims that the rise in ethics regulation has been discussed extensively since the 1980s. Mayne *et al* (2018) says that ethical foundations in early childhood research can be based to ensure the rights of a child are upheld. Ethical approval will be requested from parents and carers of the children taking part to ensure transparency of the research project (Harcourt and Gray 2013). The NSPCC

Research Ethics Committee (REC) is in place to ensure the research undertaken is the best it can be with the aim to provide safe and ethical research (NSPCC 2020).

According to the Early Education (2011) the code of ethics is drawn and informed from Early Childhood Australia (ECA) and the National Association of Educators of Young Children (NAEYC). The code of ethics defines the core values of early childhood and provides professionals with guidance should they encounter any conflicting obligation or responsibilities in their work. British Education Research Association (BERA) (2018) central focus is on wide range of educational research topics and with members they work towards advanced research quality, building research capacity and fostering research engagement. BERA fifth edition was published in 2024 will further support to empower researchers to carry out their research more ethically.

### **Data Privacy and General Data Protection Regulation (GDPR)**

A framework called General Data Protection Regulation (GDPR) sets out guidelines to follow when collecting and processing personal information of people who live in the United Kingdom (Wolford 2024). The Data Protection Act (2018) explains that this act is the United Kingdom's implementation of GDPR and that everyone must take responsibility when using personal data following the data protection principles. Information must be used fairly, lawfully, and transparently and kept for no longer than necessary. Under the Data Protection Act (2018) you have the right to source what information the government and possible other organisations store about you. Bera (2018) maintains that all citizens are entitled to seek how and why their personal data is being stored and to whom it may be available to. The researcher has a duty of care to act accordingly if they believe a child is in need or at risk of harm to the safeguarding team. This does need to be openly discussed with parents or carers of the child.

### **Right of a child during research**

Early years research was transformed by the United Nations Convention on the Rights of the Child (UNCRC). Children are to be given the right to participate whilst making an informed decision and a choice on their own participation (Mayne *et al* (2018). UNCRC (2024) Article 12 states that a child who can express their own opinion and view has the right to express these freely. In addition, Article 13 also encourages a child to express their thoughts and opinions and access information they request.

Before observations are done, a child will verbally be asked if they wish to take part. They will be asked by early years practitioner and will either agree or disagree freely. If they agree this is formally known as giving assent. Cotrim (2021) says that children need to understand the information being given to them regarding the purpose of the observations when obtaining assent. The importance of the child providing assent will need to be discussed with parents and carers. The researcher will have

previously gained consent from those responsible for the child, such as a parent or carer (BERA 2018).

### **Consent**

Consent is different to assent because it is a more formal agreement with deeper understanding. Consent involves the permission of someone for something to happen and in some cases be a written approval (Writing Explained 2017). When seeking consent for this project, practitioners will present information and a written form for the parent or carer to sign an agreement with observations being carried out of their children. This will happen during the setting in opportunities that occur prior to full-time attendance to the early years setting. Practitioners will be expected to explain the observation's purpose through outdoor play, making the parent or carer have a clear understanding to be able to gain appropriate consent. Bera (2018) maintains the importance of ensuring the rights and interests of those indirectly involved in the research to be considered. In the Bera guidelines, a researcher should consider providing necessary information to obtain informed consent.

### **Assessing and Reducing Risk**

NSPCC (2023) suggests that children may find participation in a certain activity stressful or be worried about how the researcher responds to the observation. In some cases, children may find certain circumstances triggering or cause distress during their experience. Therefore, it is suggested that researchers adapt their research approach to meet the needs of the child and ensure the activity can be accessed easily. Practitioners observing will need to be mindful of their approach to activities ensuring they are age and developmentally appropriate. Lyndon (2019) points out implementing the mosaic approach will encourage purposeful listening. The role of the practitioner will then be to guide the child through their own expressed needs and wishes, reducing the risk of negative observation outcomes.

Participants that are more than a minimal risk are vulnerable, these are children and young people, those who have a learning or medical disability and individuals that are dependent or have unequal relationships. University of Wales Trinity Saint David (UWTSD) researchers are expected to maintain a high ethical standard and in practice be honest, have openness, care, and respect (University of Wales Trinity Saint David 2022).

Identify and reduce risks related to attacks on education (2023) advise that educational institutes need to carry out risk assessments to identify and manage the risks that will facilitate safe planning and decision making through research.

### **Openness**

How the parents, carers and children see the researchers in their eyes is fundamental to the outcome of the research. Therefore, being open with the participants can help the practitioner prevent unconscious bias influencing their observation field notes (Platt and Horwath 2019). Staff (2021) suggests a practitioner must build a bond with the child and be open with them, as it encourages them to be

open too. Promoting and actively being open with the child shows them that they can speak freely about their own thoughts and feelings. This collaborates with UNCRC article 12. Diaz (2020) argues that the children's decision making to share thoughts may likely cause significant harm and decrease development progress. Hence why the importance for a practitioner to act on disclosures that may potentially leave a child at risk of harm.

### **Disclosures**

Staff and researchers are at risk of disclosures. Disclosure is an experience or information a person wishes to share with another person through verbal communication or social interaction (Chaudoir and Fisher 2010). Likewise, Christensen and James (2017) state that children will verbally reveal family secrets or witnessed events and expose their own concerns to a practitioner rather than their own parent or carer. Firstly, it is the priority of the practitioner to inform the setting safeguarding officer. The safeguarding officer will then need to appropriately record any sensitive information and share it with the parent and carer and process a multi-agency safeguarding hub form (MASH). MASH's purpose is to bring all different agencies together to share information quickly to make effective decisions to safeguard vulnerable children. MASH also mitigates the risk of anyone slipping through the safeguarding net (Gov.uk 2014).

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