

Are children playing, learning, and behaving differently when they have free access and can choose in what environment to play in independently?

Abstract

Some early years childcare settings do not have unrestricted access to the outdoor environment from their classroom so that the children can choose freely when to play outside (Care Inspectorate Wales 2019). This research will look at the impact and benefits of having unrestricted access to the outdoor environment in early years settings around the Powys area in Wales. The research question is: Are children playing, learning, and behaving differently when they have free access and can choose in what environment to play in independently? Children choosing learning environments is not a new concept as is highlighted in the Curriculum for Wales which states that both indoor and outdoor environments in the early years setting should have learning experiences that support children's holistic development in both environments (Welsh Government, 2022).

Frebel (1987), Jan White (2011) and Reggio Emilia approach, all highlight the importance of and benefits of having effective environments both indoor and outdoor that meet each individual child's holistic needs. An environment that is child centred, that provides a wide range of authentic experiences both indoors and outdoors and the child having a sense of belonging. This study will be carried out in Powys in Wales and will focus on the early years ages between 2–4-year-olds in 20 different Nursery and Preschool settings. The process will be over two school terms, the Summer and Winter. Looking at 10 early years settings with a door leading from the classroom to the outdoor environment where children can independently choose which environment they want to play and learn in. And 10 with no free flow accesses at all where children must be either outdoors or indoors with no freedom to choose the environment where they want to play and learn.

Evidence will be collected through mixed methods research and using the Leuven observation tool and the Mosaic method providing data through photographs. Triangulation will be gained as data will be collected from all early year's practitioners in all the participating early years settings in Powys through questionnaires about how children engage in learning in both environments.

Feedback will be sought from the children about what environment they like to play in and would they like to choose will be gained through observation and child friendly questionnaires.

Key words: Holistic Development, Outdoor, Indoor, Environment, Learning experience, Choice.

Literature Review

What are the benefits and impacts of having an unrestricted access to the outdoor environment in early years? When children play outdoors, they have more space to explore the world around them in a bigger scale and having first hand experiences of natural occurrences in the environment (Froebel trust, no date). Also, outdoor play has health benefits and supports children's well-being by giving opportunities to develop self-confidence, independence and self-esteem (nidirect, no date). Supporting this research highlights the importance of outdoor play, Kua, Barnes and Jordan (2019) cited in Outdoor learning early childhood education: explored benefits and challenges, states that the indoor and outdoor environments both benefit children's learning. The outdoor environment provides a nature learning experience that meets children's holistic needs particularly developing social and communication skills, problem solving and self-regulation. This study shows that children having time spent outdoors for enjoyment and learning purposes reduces stress and improves children's moods (Kiviranta et al. 2023). In addition, Sandseter et al. (2022) research shows that children engage with these types of play functions, constructive, dramatic and physical play when in the outdoor environment. The Study looked at functional and physical play in both indoor and outdoor environments and found that indoors children engage with more symbolic play than in the outdoors and have more functional play outdoors than indoors. Furthermore, Froebel (1836) believed that it was important for practitioners to create a physical environment both indoor and outdoor and the outdoor was a key learning environment where children can be in touch with nature and have the freedom to explore and learn. He highlighted the importance for children to learn without having loads of pressure from practitioners (Early Education ,2021).

Stated in the United Nations International Children's emergency Fund (2020) children having time to play outside is linked to children having higher levels of happiness (Unicef,2020). However, Jan White (2011) highlighted the issue that children are less active than children years ago, the indoor activities lack a contact with nature, the early years have a vital need for settings to provide youngest children with a large amount of time playing outdoors with high quality experiences. As is shown in the Curriculum for Wales (2022) which states that both indoor and outdoor environments in the early years setting should have learning experiences that support children's holistic development in both environments. Where children can learn in their preferred learning environments and at their own pace. It also states that being outdoors allows children to learn, explore and engage with the natural world around them that provides opportunities for children to experience awe and wonder in a greater scale than indoors. Also, the outdoors provides children the opportunity to experience risk that supports resilience and confidence development (Welsh Government ,2022) Similarly, the Reggio Emilia approach sees both indoors and outdoors environments as the third teacher allowing the children to

explore their own interests, cooperate with others and learn from the experience in both environments (Goodwin University,2020). However, Flautau (1950) created the first school in the forest (forest school) which is in an outdoor environment where children benefit from deeper holistic learning experiences than in a traditional classroom environment (forest school foundation,2020). Overall showing that having a good quality outdoor environment where children can spend significant time, that is full of learning opportunities is beneficial. Whether it is in the larger outdoors or in a smaller outdoor environment what children gain from being outdoors is greater than being in the indoor environment as Grahn et al, (1997) recognize that children spending time outdoors is an indicator of quality in early years education. Claiming that the more time children spend outdoors supports better opportunities for children to play undisturbed, which supports children's holistic learning and development (Thomas and Marianne,2010).

Methodological considerations

This research will look at the impact and benefits of having unrestricted access to the outdoor environment in early years settings. Where the children can choose their preferred learning environment. The research question is: Are children playing, learning, and behaving differently when they have free access and choose to play outside independently?

Sample

The research will be carried out in Powys in Wales and will focus on the early years ages between 2–4-year-olds in 20 different Nursery and Preschool settings. The process will be over two school terms, the Summer and Winter. Looking at 10 early years settings with a door leading from the classroom to the outdoor environment where children can independently choose which environment they want to play and learn in. And 10 with no free flow accesses at all where children must be either outdoors or indoors with no freedom to choose the environment where they want to play and learn. Are these children having the same learning experience as those in the early years settings that have doors leading from the classroom to outdoors? When the outdoor environment is freely explored how often do children play in this environment?

Method

To carry out this research with children aged 2-4 years old recognising that children have the right to be in the research and can express themselves in different ways and must be listened to and have a voice (Harcourt, Perry and Waller, 2011). The United Nation Convention on the rights of the child UNCRC article 13 states that every child has the freedom to express themselves and their thoughts and opinions, can access any information if it is within the law (Unicef ,no date). In addition, Alison Clark (2003) in her mosaic approach includes the 'voice of the children and listening to this the researcher is looking at the viewpoint of the children. The mosaic approach is a range of methods for listening to children which include observation, interviewing, photography, book making, map making and magic carpet (Clark ,2011).

This research will be carried out using mixed methods with both qualitative, quantitative and mosaic approaches. Mixed methods in research will give different opinions and understanding on whether the children are learning and behaving differently when they have free flow to the outdoor environment (Robert –Holmes, 2018). In addition, Green and Hill (2005) cited in Research in early childhood (2013) stated having multiple methods of collecting data, children will be interested in the research taking place and be able to see the greater picture of the experience that is happening.

The qualitative method is to get a deeper insight into the research question (Tenny,Brannan and Brannan ,2022). The Leuvan scale observation tool that was created by Ferre Leaver (1994) will be used to record observations. The scale is made of 5 points which it used to assess children's well-being and their engagement and involvement in the early years setting. Using this tool the researcher will be able to observe children for short part of the day assess and measure the children's involvement and engagement in both indoor and outdoor environments. Marking the children individually on the scale 1-5 ,1 being low level of engagement and involvement and 5 being extremely high level of engagement and involvement (MacRae and Jones 2019). However, the Leuven scale has some limitations and may not effectively measure children with additional learning needs (ALN) or has a disability and may not appear on the scale. Other methods of observations will be used of the children in their natural play in the sessions, observations will be recorded of the children, photos will be taken and observations noted. This will give an understanding into the children's stages of development and how they interact with the environment and see the world around them. With considerations that children may not be themselves when being observed which is called the Hawthorne effect, where people change their behaviour when they know that they are being watched. This is one of the challenges when gathering information by making this research successful trust needs to be gained to make the children and practitioners feel relaxed and unthreatened (Oswald et al, 2014).

Rolfe (2001) cited in Research methods in early childhood: An Introductory Guide (Mukherji and Deborah, 2010) stated using observations are useful way for researchers who want to understand or explain everyday behaviours of babies and young children. This is the only way to gain information because children may lack communication skills to complete questionnaires and interviews. Therefore, observation allows the gathering of detailed information about children's interests, stages of development and behaviour in a natural environment which identifies individual needs. That will provide the research qualitative data with a rich understanding of the children's preferred learning environment, their learning processes and individual pedagogical styles. However, the limitations that may affect observations are self-biases and researchers need to make sure their own biases do not influence their observations by observing with an open mind with no assumptions made (Peterson and Elam, 2020).

Using the mosaic approach children take photographs to make books of the important things to them in their environment this will give children opportunities to share their likes, and this shows practitioners are taking notice of their preferences.

Simple questionnaires will be used by the practitioner with all the children in each setting, this questionnaire will be a photo of their indoor and outdoor environment. The children will put a happy face or point to the environment they like to play in and the activities they prefer. These leading questions will be recorded by taking notes. Keeping the question simple and clear so the children understand and give a clear answer (Nolan, Macfarlane and Cartmel 2013).

A literature review of inspection reports will be carried out and data collected from reading each early year's setting's inspection reports from the Welsh early years inspectors (ESTYN) and Care Inspection Wales (CIW) to gain knowledge on the impact and the importance of having open door access to the outside in early years settings. The limitation to this method is that it will time consuming to read all reports and analyse relevant data (Grewal, Kataria and Dhawan 2016).

Gathering data from all participating early years settings in Powys by sending out surveys this quantitative research will collect a greater amount of data that can give a broader understanding across different settings. However, the limitations to this are there might be a lack of feedback from practitioners the information might lack depth and be limited and may contain bias.

Using this mixed method in the research can look at the subject in different ways having a variety of different perspectives ensures the data is not biased and is confident that the result is not caused by another factor which is a form of triangulation (Mukherji and Aldon 2010). However, triangulation makes the use of mixed methods to confirm the validity of research

findings. But it is not the same as mixed methods triangulations are how the researcher makes use of all multiple approaches. Using multiple approaches increases and enriches the research findings, providing more data leading to greater validity and trustworthy findings (Akutey and Tiimub ,2021). This will ensure that information is not being missed and is correct, using these methods this will give a broader and reliable understanding of the data been collected than just using qualitative method. Alone, observations will not provide enough data and will not see the full experience and picture nor highlight the strengths and weaknesses of the research (Swain and King ,2022). This research will aim to triangulate the evidence to gain accurate data and information.

Ethical Considerations

This study will be using mixed methods and mosaic approaches, with the children and practitioners in all the early years settings. Looking at what are the benefits and impacts of having an unrestricted access to the outdoor environment in early years? The mixed methods approach will be Leuven scale observation of children in their natural play, and other observations methods these will be recorded by recording of children playing naturally, photos of children playing and learning in both environments and taking note with general observation of the children playing. Simple questionnaires for children and questionnaires for each practitioner in the early years setting and literacy review with information that gathers from CIW.

The possible benefits from the research study will be finding which environment children prefer to play and engage with learning experiences and the setting that has no independent access to the outdoors are the children getting the same learning experience. The views of the practitioner about their setting learning environments, establishing if they have negative views about the environment that they have no control over due to building space and resources.

Consent and participation

The research will be carried out following the British Educational Research Association (BERA) ethical guidelines (2024). A clear information letter, detailing the research and consent forms will be provided to all participating settings, parents and carers. The information would explain what the research is about and what is expected of the participants and that the research is voluntary (NSPCC, 2023). However, language barriers will need to be taken into

consideration and providing the information about the research in the parent or carers mother tongue, to ensure they fully understand the study as is highlighted in BERA (2024) that researcher needs to be aware of the risk of misinterpretation when it comes to multiple languages or culture and should consider the need for translation to ensure participants are fully understanding what they are taking part in. BERA also states that the participants consent will be required at the start of the research and that participant is able to withdraw their consent at any time during the research without having to provide an explanation which is made clear to the participant at the start of the study. Supporting this the NSPCC (2023) states that the participants have the right to ask for their data to be removed from the research if they withdraw their consent.

On the consent form it will have a separate consent section for parent and carers to give permission for photos to be taken of their child and will state that the photo we only used for the purpose of this research. Consent forms will need to be signed and returned to ensure that consent is given to participate in the research. Parent and carers will be giving consent on behalf of their child due to the children being 2–4-year-old and if child does not want to take part in the research the child has the right to override the consent from parent or carer (NSPCC,2023). As it stated in article 12 in the UNCRC that all children have the right to express themselves, share their views, feelings all the time and have their feelings considered, respected and taken seriously with matters that may affect them (Unicef, no date). Similarly, Department of Education (no date) states researchers must check with children regularly if they are still happy to participate in the study. Supporting this Alderson et al. (2006) highlight that giving the children opportunities to choose whether they still want to participate, and allowing the children to have these choices supports and strengthens their skills to make responsible choices (Waligora ,Rozynska and Piasecki,2015).

In addition, if parent or carers, have not responded to any contact attempts from phone call reminders and forms have not been completed, this may be a sign that they are not happy for their child to participate in the research (NIH, 2016). Furthermore, The Teacher College Institutional Review Board Columbia University highlight children showing signs of verbal and non-verbal cues such as crying, fussing, throwing a tantrum, children getting distracted. The researchers should stop the study on that child if showing any signs of not wanting to participate (Cotrim et al., 2021). Therefore, where signed consent forms have not been returned, or children show signs of not wanting to participate children will not be observed in the study or have data collected about them.

Confidentiality and anonymity

Participants will not be identified by their names to maintain anonymity, so no one is able to identify the participants (Coffelt, no date). In this research a coding system will be used to maintain confidentiality to protect anonymity children will be given a letter of the alphabet for example Child A, B, C. As it is stated in the National Center Research Methods (NCRM) (no, date) that researching using pseudonyms for children is one way of not breaking confidentiality and anonymity. In the questionnaire participants will not have to provide any personal information for example name of practitioner, or children in the early years setting this is one way the researcher can keep the participants anonymous and confidential (Evergreen,2025). However, the researcher if there are any safeguarding matters or concerns will need to follow the settings safeguarding procedures alerting the designated safeguarding person and discuss this with the Data protection officer who will advise the University on what to do (University of Wales,2022).

Furthermore, all data of the study will not be shared, and evidence will be stored in accordance with the Data Protection Act 2018 which states that when it comes to collecting data the researcher should handle and protect personal data, make certain that privacy and ethical conduct are being followed and that the researcher only collects data that is needed for the study. Which is stored securely and only used for research purposes (Uk data service ,2025). The photographic evidence will be encrypted and stored on a password protected device this will be used to maintain confidentiality which in line with the Data Protection Act (2018). The research findings will be made available to all settings and parents upon request. Supporting this BERA (2024) states that the researcher has the responsibility to share the outcomes and findings of the research in a friendly way and that the views of the participants are presented.

Reduce risk to:

Participants

This research will have minimal risk to practitioners and children, but the researcher needs to be aware of potential risks that may occur and to reduce the risk in this study, following the settings policy and procedures to make sure that the children and practitioners are safe. Consider that some children may find that taking part in the research worrying and stressful; to overcome this risk, it is vital for children to understand what is expected of them and what the research is about (NSPPC,2023). In addition, to any disclosure the researcher needs to follow safeguarding guidelines and procedures (NSPCC,no date).

Researcher

The researcher needs to follow and be familiar with the guidelines for educational research BERA (2024), the University of Wales Trinity Saint David (UWTSD) Research ethics and integrity code of practice (2022) and the early years setting policy and procedures, Data Protection Act (2018) to minimise the risk to the research and them. NSPCC highlighted that research should follow risk assessment and on-going risk assessments and to make sure that the researcher has support available to them during the study and after data collection. Researcher needs to consider their own safety mainly when working alone and out of the workplace (NSPCC, no date).

University

The researcher will have to maintain the highest ethical standards by following the UWTSD code of practice, Data protection Act 2018 and the General Data Protection Regulation 2018(UK GDPR). This legislation supports the university's responsibilities in making sure that all measures are in place to protect data (UWTSD ,2022). Researchers that are working with children or vulnerable adults must have an enhanced Disclosure and Barring service check. UWTSD highlight the research needs to be transparent and that data is processed fairly and ethically.

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