

How does behaviour during outdoor learning and play differ to behaviour within the classroom in Wales?

Abstract

This study will be conducted to show if there are behavioural changes in children depending on the environment on which they are in. This study will collect qualitative data through observation, video, and interview. Children will participate in semi-structured interviews in order to acquire a better understanding of the contextual elements affecting behaviour. They will also participate in adult led observation and the opportunity of wearing GoPros to capture 'in the moment' experiences. Additionally, focus groups will be held to talk about the way individuals view both indoor and outdoor play. The research will focus on children aged 4, observing their interactions and engagement levels in both environments. The main goals are to distinguish between the behavioural patterns of indoor and outdoor environments, establish the effects of these settings on developmental outcomes, and offer educators evidence-based suggestions for improving learning environments. Data will be gathered for a duration of six months. This study will involve the use of triangulation, to ensure all data collected is valid. It is anticipated that the study will highlight important behavioural distinctions between indoor and outdoor settings. In particular, it is expected that children's behaviour will be influenced differently by a variety of environmental conditions, including space, materials, and adult supervision, and that social connections and physical activity will be higher in outdoor settings, increased cognitive engagement, and organised learning will occur in indoor settings. The methods that will be used have been carefully considered so they are child friendly, and ethical risks have been taken into consideration. This study will take into consideration the risks of the participants, researcher, and university to ensure the study complies with General Data Protection Regulation (GDPR).

Literature Review

Within the early years, there is an emphasis that outdoor learning is important for all children. This study will show how behaviour differs in the outdoors in comparison to

the indoor environment. Rockliff and Chinnery (2015), discusses the 'Wellie Wednesday' programme which focuses on the needs of the individual child and family. This programme was led in the outdoors, primarily to see if and how behaviour changes in the outdoors. Rockliff and Chinnery (2015) highlights the fact that when children experiences trauma at an early age can communicate their distress through their behaviour. This could include children who have experienced bereavement, parent separation or violence. This is key in this study, as it looks at the individual, all aspects of backgrounds need to be acknowledged to understand why behaviour may differ in the outdoors compared to the classroom. When this programme was conducted, it is suggested that behaviour was changed positively as children were able to explore, be adventurous, and take risks within a contained, safe outdoor environment. One of the big reasons as to why this study is going to be conducted is to gather a deeper understanding of how children's needs can be met, whether that would be within the outdoor environment or indoor classroom.

Forbes and Hollyhock (2014) made the point that the outdoors can be seen as an extended classroom, meaning that learning is not limited to just the indoors. Their study showed that children had an increased enjoyment of lessons, they were engaged and had a feeling that their well-being was being supported. This study that will be conducted will further that research and show whether there is a clear difference in behaviour when children are learning in the outdoors in comparison to the indoor classroom. Loebach and Cox (2020) discuss how Parten (1932) decided to conduct her studies in indoor settings because "it was thought that elements might enter into outside play which did not exist in indoor play." As this is outdated, up-to-date research is considered as needed in this field of knowledge, hence the reason for this study. Similar topics were investigated by Williams and Scott (2019) in their research on secondary schools. They discovered that indoor and outdoor learning differs and that each might have a varied effect on students' behaviour, engagement, and mood in both positive and negative ways. This study will focus on early years children, meaning the research found by Williams and Scott (2019) in secondary schools can compare to secondary school children and whether there's a link of effects with embedding outdoor education from an early age.

According to a study conducted by Natural England (2016), positive effects on behaviour were observed in 85% of schools because of outdoor learning. On the other hand, Marchant *et al.* (2019) states that regarding the apparent impact that had on children's behaviour, there were differing opinions expressed. Those who thought it would be detrimental at first specifically mentioned how the thrill of outdoor learning encourages disruptive behaviour.

This study will conduct similar research in Wales and look into whether there's links to improved behaviour and the different curriculums in England and Wales.

According to Lundy and Trawick-Smith's (2020) study, results showed that playing outside before completing a classroom task led to more focused conduct for boys and children from lower socioeconomic backgrounds. Their research has several ramifications for preschool practitioners' daily work. From their research, they believe that the first way to increase on-task behaviour is to design a daily schedule that includes whole-group learning sessions and outdoor playtime right before play. On the contrary, Bilton and Crook (2016) claims that some children's behaviour can change while they're outside, so it can be necessary to come up with different techniques to keep them focused. They believe that a clear expectation should be made so children aren't tempted to get carried away and show "playground behaviour". According to Rogers and Evans (2008), in outdoor participatory pedagogy, with more open interactions and collaboratively formed methods of thinking about information rather than knowledge being delivered, the rigidity of classroom roles and conventions of behaviour sometimes seems to disappear. This study endeavours to deepen understanding and knowledge how children's behaviour differs during outdoor learning compared to the classroom environment. Compared to indoor settings, outdoor surroundings offer richer and more distinctive learning opportunities. Practitioners may maximise the educational potential of outdoor surroundings by creating activities that stimulate curiosity, discovery, and hands-on learning by having a thorough grasp of how children behave and interact in these settings.

Methodological considerations

This study has a purposive sample of five, reception aged children (aged 4) who are considered to be somewhat disruptive in the classroom. Cohen, Manion and Morrison (2018) states that purposive sampling is a commonly used technique in qualitative research wherein researchers select instances for participation in the sample by hand based on their assessment of the examples' typicality or possession of the specific characteristic(s) of interest. The sample size is relatively small because detailed observations will be carried out to support the research of this study. In research, a sample is a selected group of people or objects chosen for the purpose of study. Researchers can draw conclusions or generalisations about the population from the sample's data since it is representative of the group from which it was taken. According to Cohen, Manion and Morrison, (2018) research quality is determined by the acceptability of the sample approach used, as well as the appropriateness of the methodology and apparatus used.

This study will require carrying out qualitative research. According to Creswell and Creswell (2023), a common way to distinguish between qualitative and quantitative research is to say that qualitative research uses words instead of numbers, or even better, that qualitative research uses closed-ended questions and answers (quantitative hypothesis) or open-ended questions and responses (qualitative interview questions). Creswell and Creswell (2023) claims that researching the meaning that people or groups assign to a social or human issue is done through qualitative methods. New methods and questions are developed during the research process, and participants' settings are usually used to gather data. In this study's case, the setting will be the reception classroom and the outdoors. Atkins and Wallace (2012) make the point that the goal in conducting education research is to improve our own and others' comprehension of what makes for good teaching and learning. Thereby, qualitative data enables the researcher to gather a deeper understanding into what they are looking for.

Observation

This study will consist of using the methods of observation and interview. Interviews will use open questions to gather information on children's preferences on learning

environments and how they feel about the outdoor/indoor environment and whether that links to difference in behaviour. These methods have been chosen as they will generate qualitative data and provide a detailed insight of how children behave in the different environments.

According to Smidt (2015), The practice of observation needs to become more planned and conscious if it is to be a helpful tool for practitioners in preparing for the learning and development of the children. Lambert (2019) makes the point that observation provides a straightforward way to learn more about what truly occurs in real life. Lambert (2019) also claims that not only may observations provide insightful information, but they can also be very beneficial for both inexperienced and experienced researchers. However, Lambert (2019) also states that even with these benefits, making the most of observation's potential and using its processes in meaningful ways necessitates careful consideration of methodological and ethical issues. According to Newby (2014), in contrast to other methods, observation has some advantages, and we must determine whether these advantages can be realised in the context of our own study. One caution, though, is that observational data collection may offer greater flexibility than many other methods, which can be limited by principle or by custom and practice, as we have shown. This means that we shouldn't be scared to push an observational approach's boundaries. This study will shed light on behavioural changes of the children depending on the environment through observation. Adults can evaluate children's physical, cognitive, social, and emotional development by seeing how they interact with their surroundings and classmates. It is important that it is first decided what needs to be observed, what the primary areas of interest are, and why it is believed that observation will yield the information that is required before the thought of observation being used as one of the data collection approaches (Bell, 2017). Bell (2017), also says that it should be considered to convince a coworker, or fellow student to accompany as many observation sessions as possible if you the research that is being conducted is in a field of expertise. During the course of this study, a comparison will be made through observation. Five children will be closely observed in both the outdoor and indoor environments where more than one adult will be observing as well as the use of

GoPros. The observation led by adults will be completed at a different time as the use of GoPros to investigate whether adult presence also makes a difference with the children's behaviour. Observing play can highlight issues such as aggression, shyness, or difficulties in peer interactions, which might need attention. It's important that a whole picture is drawn through observation to understand why children behave in certain ways (Smidt, 2015). It is hopeful that the use of observation in this study will show understanding on how a group of children firstly behaves in the outdoor environment, whether they show good behaviour in terms of sharing, collaborating and problem solving. An observation will then be made within the indoor environment, where similar enhanced provision will be set up, to give an insight into whether the children's behaviour changes. However, there can be limitations when carrying out observations during research, particularly the Hawthorne effect.

McCambridge, Witton and Elbourne (2014), makes the point that according to the Hawthorne effect, taking part in research, being aware that one is being observed as a result, can have potential behavioural effects. This could be seen as a barrier. As indicated in Vygotsky's socio-cultural theory, (1978), adults who observe children can have an impact on their behaviour. Children can be guided to achieve at their highest potential within their zone of proximal development by the observation, which serves as a scaffold. McCambridge, Witton and Elbourne (2014) says that research may be profoundly impacted if there is a Hawthorne effect, as it may lead to bias in ways that are not fully understood. Bilton and Crook (2016) supports this by stating that to determine whether or not a behaviour change has truly occurred in a child, observations must be taken in a methodical manner while noting any changes in the behaviour. To ensure this is limited in this study, as mentioned above, children will also have the opportunity to wear GoPros so the researcher has 'in the moment' experiences to support any data collected.

Interview

The method of interview will also be used in this study. O'reilly and Dogra (2017) summarises interview as being a conversation involving two or more individual, during which the interviewer asks questions of the other person (the interviewee) in order to get their responses. According to Brown and Perkins (2019), interviews are

a useful tool for learning about children's ideas, feelings, and opinions directly from the source. Brown and Perkins (2019) also state that during an interview, the researcher can inquire about the specific topic of interest without depending on reports or observations that has been carried out on the child/children. Also, the flexibility and dynamic nature of interviews allows the research to adapt to participants' answers, improving the level of detail and detail of the research findings. The United Nations Convention on the Rights of the Child (UNCRC) states in article 13 that children have the right to a voice. It states that all children should have the freedom to voice their ideas and opinions and have access to any type of knowledge, provided that it is contained within the legislation. Interview supports this right, as children have the opportunity to discuss what they enjoy and how might they feel their behaviour may be influenced by the environment in which they are in. O'reilly and Dogra (2017) state that there are many different kinds of interviews that can be conducted, making them a flexible technique of gathering data. They are adaptable in that questions to ask can be chosen by the researcher, in what sequence to ask them, and which avenues of research to delve more into. The questions wording can even be modified to better meet the needs of each child. In this study, children will be interviewed to identify why certain behaviours may be triggered or shown. Questions such as 'can you explain if you prefer learning in the classroom or in the outdoors?' Taking the children's age into consideration, the questions asked will be open questions to allow access to in-depth qualitative data, however, they will be worded so the questions are straight to the point to avoid confusion and upset. However, there are also limitations to this method of research. A young child's attention span frequently affects the capacity to conduct an interview, especially if conventional interviewing techniques are used. Children's responses may also be influenced by their fear of the adult researcher, which could cause them to say what they think the researcher wants or expects (Brown and Perkins, 2019). This study will contain the use of triangulation to ensure that data collected is valid by using more than one research method. Because the children in this study are young, it's important that there is a use of triangulation to ensure a big picture of what is being collected is valid.

Ethical considerations

As always when conducting research, it is important that ethics are taken into consideration. Like with many other forms of data collection, observation involves obtaining the informed consent of participants, their right not to be observed, permission from the parents and school, and possibly clearance regarding the safety and dependability of the researcher to work with children in schools (Cohen, Manion and Morrison, 2018). As children are involved in this study, it is important to obtain voluntary consent from the participants and they should be told that they should not feel pressurised or that they have to take part and they must have a clear understanding as to what they are consenting to. This links to the UNCRC where article 3 states that the best interests of the child should be at heart always. Their best interests should be the researchers' top priorities and something such as asking them in consenting to take part in research could affect the child/children. Article 12 also states that each child is entitled to the expression of their opinions, feelings, and desires on any issue that affects them, as well as the consideration and serious consideration of those opinions. The British Educational Research Association (BERA) states that the rights and obligations for those who have legal guardianship over children, such as parents, or those who are considered "responsible others," will be considered by researchers adhering to the UNCRC. (That is, individuals like social workers who are in charge of the participants' welfare and well-being). Obtaining the approval of individuals in charge of children, such as parents or guardians, may be necessary for this. BERA (2024) in order to help participants willingly in the research, researchers should thoroughly investigate all available options to gain consent if obtaining 'assent' from the child who is participating. Assent is a declaration of intent to take part in a study or activity for those who are thought to be unable of providing their own legal consent. According to the British Educational Research Association (BERA), it is expected to obtain participants' voluntary informed consent to participate in a study at the outset, and for researchers to be mindful of and accommodating to the possibility that participants may choose to withdraw their consent at any point in time for any reason. Researchers should be alert to non-verbal signs that individuals who previously consented to participate may

no longer wish to. Signs such as body language should be taken into consideration in this study, especially in young children as they may feel as though they can't or not sure how to verbalise that they do not wish to participate in the research any longer.

It is important that the participants and the participants' parents who are involved in this study understand that confidentiality and anonymity will be adhered to at all times. While confidentiality assures that a participant won't be identified in any manner during the study, anonymity goes a step further by ensuring that not even the researcher will be able to identify the individual (Bell, 2017). The Data Protection Act (DPA), which the GDPR replaced, was based on similar principles. The primary distinction is that the GDPR imposes an accountability requirement on data holders, requiring them to demonstrate how they adhere to the law's principles by, for instance, keeping records of the data's collection and storage procedures (Bell, 2017). GDPR protects people's rights and privacy, guarantees legal compliance, encourages moral behaviour, improves data security, makes it easier to collaborate on research projects, and imposes accountability, all of which make it crucial for research. Researchers can safeguard the confidentiality of study participants and uphold the reliability and integrity of their work by following GDPR (information commissioner's office, 2019). In this study, it is important to protect the participants identity because of GDPR laws. This will be reassured when consent is obtained. It is expected of UWTSD and its researchers to uphold the highest ethical standards and to promote the virtues of integrity, rigour, transparency, kindness, and respect. A comprehensive framework for research ethics that includes explicit guidelines, standards, and protocols to assist researchers (University of Wales Trinity St David, 2022). Whilst carrying out this study whilst being a student of University of Wales Trinity St David, frameworks, obligations, and standards of ethics, law, and profession as mandated by employers, funders, and other pertinent parties in addition to legislative and regulatory authorities will be respected.

Reducing risks

The participant

It can be said that there are potential risks when carrying out this study. There may be risk to the participants as they are children. This may include:

- Research participation can be distressing for children. The child/children may feel as though they are under pressure and could cause unnecessary upset.
- The study could reveal, elicit, or bring back memories or emotions. Children may find it difficult to discuss certain topics.
- Children could be concerned about how researchers will react to the information that they have provided. This may create the Hawthorne effect. (NSPCC, 2023).

There are a number of ways in which these risks can be minimised. For example, when interviewing the children, the children should feel confident and happy with the researcher. Questions such as 'how has your day been so far?' and comments such as 'it's been great to be given the opportunity to chat with you today.' This will make the children feel at ease so they may feel more comfortable when answering more complex questions. It is also important that breaks can be taken if it feels as though it is needed. This will allow thinking time and could encourage more detailed answers. It is also important that the environment is friendly and inviting when conducting the research. Children feel safe in environments that they know well (NSPCC, 2023).

The researcher

There are also risks to the researcher who is carrying out the study. NSPCC (2022) suggest that particularly while working alone, research supervisors should make sure that the researcher's safety is given the appropriate consideration. There could be the risk of lone working and a child divulging information that is a safeguarding matter. When working with children and young people, it's generally best practice to have two or more adults present. This means another adult is present to help record any information given. Also, by having another adult present, it allows for any data collected to be verified. It is important that adults that are obtaining research from children withhold a current, up-to-date enhanced Disclosure and Barring Service check. (UWTSD, 2022).

Another risk may be participants' failure to provide adequate informed consent may lead to violations of ethics and even legal repercussions. As a result, it is important that both assent (from the child) and consent (from the parent or guardian) is obtained. Whenever possible, researchers should be upfront and truthful with participants and other stakeholders, refraining from withholding information unless their research design clearly calls for it to guarantee that the relevant data are gathered, or to ensure the safety of the participants or the researcher (BERA, 2024).

The University

To reduce ethical risk to the university, it is important that all research proposals are cleared with the university ethical committee to make sure they adhere to moral standards and safeguard the welfare and rights of participants (UK Research and Innovation, 2023). Also, to prevent risk to the university, it may be necessary to carry out a risk assessment to ensure that it has been shown that all risks have been thought about (UWTSD, 2022).

Storing data

It is important that the participants (the parents who are giving consent) are informed of how data is going to be stored and how long for. According to Cohen, Manion and Morrison (2018), maintaining data security, secrecy, reproducibility, and compliance with ethical and legal requirements all depend on proper data storage in research. Researchers can preserve the trust of study participants and the general public, safeguard sensitive information, and enable academic verification by putting strong data management procedures into place. Researchers and organisations can guarantee that the data they store complies with GDPR, safeguarding the rights of data subjects and preserving the data's integrity and security. This method promotes confidence and transparency in the research process while reducing legal and ethical hazards. Also, according to article 15 of GDPR (2013), participants should have 'right of access by the data subject' meaning all data collected must be stored where it can be seen.

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