

A critical analysis and evaluation of the observation research tool, the Leuven Scale

Is outdoor learning more effective than indoor learning within a year 2 class?

Introduction

During these observations, I investigated whether outdoor learning affects Year 2 learners' involvement, compared to in class learning. Prior to the observations, I created an observation schedule, which helped me keep on track on what I was investigating. I involved six learners, all mixed ability, and the two observations included one task outside and one inside, both taking place at roughly 15 minutes each. During the outdoor observation, the six learners were told to complete an orientation task in which they had to seek 10 cards. Each card held a riddle they had to read to figure out the fictional character, for example Little Red Riding Hood. The indoor observation was a whole class lesson; however, I focused on the six learners from the first task, this lesson focused on money and counting. For me to come to an overall conclusion successfully, I created three aims prior to carrying out my observations.

Aim 1 – to investigate primary research on the impact of learners' involvement during outdoor learning, by using the Leuven Scale of involvement as a tool to identify which phase (1-5) each learner fits into. I will also include secondary research, for example using various websites and articles on outdoor learning and consider both primary and secondary research when forming my conclusion.

Aim 2 – to investigate primary research on the impact of learners' involvement during indoor learning, by using the Leuven Scale of involvement as a tool to identify which phase (1-5) each learner fits into. I will also include secondary research, for example using various websites and articles on indoor learning and consider both primary and secondary research when forming my conclusion.

Aim 3 – to compare both scores each child has been given to come to an overall conclusion. I will also compare my primary and secondary research that I have found to help me.

Observation Schedule

Is outdoor learning more effective than indoor learning within a year 2 class?

Date: 7th – 8th February 2024

Year group: Year 2

Observation 1: Orientation outdoor learning

Observation 2: Math lesson indoor learning

Ability of pupils: Mixed

Number of pupils: 6

Duration of each phase: 5 mins

Observation 1 Level of Involvement

[illegible]

Observation 2 Level of Involvement

[illegible]

Literature review

The foundation phase encourages the developmental needs of children. At the center of the statutory curriculum framework lies the holistic development of children and their skills, building on their previous learning experiences and knowledge. Children learn through first-hand experiential activities with the serious business of 'play' providing the vehicle. Through their play, children practice and consolidate their learning, play with ideas, experiment, take risks, solve problems, and make decisions individually. The development of children's self-image and feelings of self-worth and self-esteem are at the core (HWB gov.wales). I ensured to use outdoor learning in one of my observations because the orientation task included play. I observed the children running around the school yard with joy expressed on their faces. I also decided to choose outdoor learning as there is much research circled around this topic, which considers the benefits. For example, Physical activity increases the flow of blood to the brain and thereby benefits brain activity, and the use of tools and large equipment or resources encourages the development of fine motor skills and hand/ eye co-ordination (Harding, S., Thomas, F.). Jean Piaget also had a positive view on outdoor learning, his main theory was that play should encourage further psychological development as children mature. Playing outside can incorporate all areas of learning and help kids to become more aware of their environment. There are a number of skill areas that can be built upon through outdoor activities, some of these include cognitive development; emotional maturity; self-confidence; problem solving; kindness and sharing; organisation. The indoor environment provides a safe, secure yet challenging space for children. For some children, it is like a second 'home', providing a place for activity, rest, eating and sleeping (Essex County Council). The Curriculum for Wales guidance aims to help each school develop its own curriculum, enabling their learners to develop towards the four purposes of the curriculum. The four purposes should be the starting point and aspiration for schools' curriculum design. Ultimately, the aim of a school's curriculum is to support its learners to become ambitious, capable learners; enterprising, creative contributors; ethical, informed citizens of Wales and the world; healthy, confident individuals, ready to lead fulfilling lives as valued members of society (HWB gov.wales). There are twelve pedagogical principles, which state what good teaching and learning involves. The fourth pedagogical principle explains good teaching and learning means employing a blend of approaches including those that promote problem-solving, creative and critical thinking. During the orientation task outdoors on the school grounds, the learners incorporated their problem-solving and critical thinking skills to solve the ten riddles. It took teamwork skills and creativeness to solve the problems they faced, and they executed them brilliantly. During the indoor math activity, I noted good teaching and learning as the teacher set the task and selected resources that built on previous knowledge and experience and engaged learners' interests. They had learned about money and counting, so the teacher used this task to reinforce what the learners had already been taught, incorporating this pedagogical principle into their teaching (HWB gov.wales).

Methodology

The educational model Experiential Education (EXE) theory suggests that the most economical way to access the quality of any educational setting is to focus on two process dimensions: the “emotional well-being” and the “level of involvement” of the learner. “Involvement” is evident when children are concentrated at the very limits of their capabilities. A five-point scale – the Leuven Involvement Scale – has been developed to facilitate measurement and ensure inter-rater reliability. In sum, EXE sees involvement as a measure of deep learning and of the effectiveness of the learning environment. With proper support, children can become well-rounded adults who are curious and exploratory, expressive and communicative, imaginative and creative (Encyclopedia on Early Childhood Development, 2011). I chose to involve the ‘Involvement’ dimension during my study, as I thought it would be much simpler to identify than the well-being of the participants without interacting as a non-participant. According to the Directorate for Education, OECD, involvement is not linked to specific types of behaviour or to specific levels of development. Involvement goes along with strong motivation, fascination and total implication (Directorate for Education, OECD, 2004). Ferre Laevers, Professor and Director of Centre for Experiential Education, explains that the conceptual framework developed by the Experiential Education project challenges the assumption that narrowly defined tests of academic achievement are the only means of measuring educational outcomes. To achieve deep-level-learning, an educational context must be constructed that brings children to the highest levels of involvement (Ferre Laevers, 2000). Lev Vygotsky introduced a concept that represents the difference between what learners can do independently, which is their level of development, and what they can achieve with guidance (more knowledgeable other), their potential level. This concept is known as the Zone of Proximal Development and is essential in designing supportive activities that stretch a student’s capabilities just beyond their current capacity, thereby promoting cognitive growth (Main, P. 2021). Vygotsky explained that people learn by accepting help from a more knowledgeable other (MKO). For example, in a classroom setting an MKO could include a teacher, teaching assistant or even a peer. When conducting my research, I observed peers acting as MKO’s several times, especially during the indoor observation math session, which supports Vygotsky’s concept of the Zone of Proximal Development. However, during my first observation which took place outdoors (the orientation activity), I found that Child C’s peer, who acted as an MKO, told Child A the answer instead of helping them with a particularly tricky riddle. Therefore, Vygotsky’s concept of the Zone of Proximal Development can be criticised.

Discussion and findings

My first observation was held outside on the school grounds. The six year two participants were told to complete an orientation task, in which they needed to find ten yellow cards placed outside of the school, all containing a riddle. They were provided with a compass each, a piece of paper on a clipboard to write down the answers to the riddles, and a map of where each card had been placed. Child C seemed involved in the activity but at a routine level. They didn't show much energy or concentration, and most of the time they would not involve themselves in figuring out the answer. Instead, they would wait for another participant to say it aloud, therefore scoring a moderate level of involvement. Child D was not easily distracted from the activity, and they seemed entirely engrossed in what they were doing, therefore scoring a high level of involvement. Child A, B, E and F revealed continuous and intense activity indicating complete involvement. They were all focused, creative, lively and persistent throughout the observation period, therefore scored an extremely high level of involvement. However, there was a significant decline in involvement during indoor observation. The six participants were involved in a whole-class math lesson, where they were going over money and counting. They were all sat on the carpet and were provided with white boards and pens to write their answers down. Child D scored an extremely low level of involvement during the indoor activity. They seemed absent-minded and displayed a lack of energy. They stared into space most of the lesson and their actions were repetitive. Child D's level of involvement was lower in the indoor activity. Child B, C and E scored a low level of involvement, meaning they were easily distracted and lapsed into phases of absent-mindedness. Child B, C and E scored a lower level of involvement during inside learning than outside learning. Child A and F scored a moderate level of involvement, meaning that they also found the outdoor activity more entertaining. After researching different types of research methods, the Welsh Government's 'effective use of data and research evidence' showed me that observations would be the most effective. This website suggests that natural setting can afford a more realistic study and schedules can eliminate bias (Welsh Government). However, as a non-participant observer, I found it difficult to keep it that way as the learners spoke to me several times during the observations. I also found it was more difficult to see things from the learners' perspective because I tried to distance myself as much as possible, but the participants made that trickier for me to stick to. The Oxford University Press explains how the non-participant observations approach is sometimes criticized because being observed may lead to participants behaving differently, demonstrating the Hawthorne effect. To ensure that I did not have to deal with this problem, I also observed similar situations throughout the day with the same participants, just so they could get used to the fact that I would be observing them for my research (Encyclopedia.com, 2024). Before my observations, I ensured that any factors that may pose harm toward the participants were eliminated. For example, I made sure that none of the activities would be more stressful than any other activity they would do on a normal school day. I also made sure that my research would not uncover any triggers or bad memories for the learners and I made it clear that any child could withdraw from the observation activities at any point. Before I started my observations, I made it very clear to each learner that I would keep their names confidential. Because all participants were under the age of 8, I also ensured that I had their teacher's informed consent so they could fully understand what my research is about; what is expected of the participants; what the risks and benefits of participating in the research are. To make my research inclusive for my participants, I held the research at a time and place which is easy for children to access. By doing this, I held both observations during lesson time at their school (NSPCC). I found that this benefited the participants because they didn't miss out on any break times or extra play in class. Empirical research is based on observed and measured phenomena and drives knowledge from actual experience, rather than from theory or belief. My research included me collecting both

quantitative data and qualitative data. It was quantitative because I filled out my observation schedule on the day of my observations. It was qualitative because my sample size was small, with a total of six participants included. Also, by incorporating my quantitative data, I could find the meanings and underlying reasons for how and why the children responded to both activities.

Conclusion

After comparing my primary and secondary research, I have concluded that outside learning is a significantly more effective method of teaching and learning for a year two class. Most of the participants thoroughly enjoyed the outdoor activity, which I could see from the positive expressions on their faces, their enthusiasm and their uplifted moods. I have found evidence that Vygotsky's Zone of Proximal Development and his concept of MKO's can benefit pupils, however I do believe that the MKO's can get carried away when helping their peers by giving them answers, instead of supporting them. However, if I was to redo this research question, I would involve myself as a participant, to get a much closer insight into what the learners were doing and reacting to. I also would have chosen a smaller group of participants because I found it difficult to keep an eye on six pupils at a time. I would say the Leuven Scale is an accurate representation of how to describe the learners' level of involvement, however I think there are certain aspects the Scale hasn't considered. For example, a child could have been feeling low that day due to personal reasons, meaning it could have affected their levels of involvement that during the two research days.

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