**Setting B, Tuesday 5th December, 2017, Fieldnotes of Researcher 2**

***Christmas Trees and Squishy Circuits***

There was much excitement today, as children were creating their Christmas trees.

The children had previously created Christmas tree collages using green sticky paper cut into triangles, which were stuck onto card. John had then cut the individual trees out of wood on the laser cutter. The children’s task was then to place the battery in the holder, stick the copper tape onto the tree and then place LEDs on the branches.

John had bought colour-changing LEDs for this activity, which created much excitement. By now, the children were very familiar with how to create the circuit using batteries, copper tape and LEDs and so needed little introduction to the task.

The children were much more independent in their construction of the circuits. They each chose to add at least two or three bulbs. The red pegs that John had constructed worked very well to bind all of the materials together. Once the children completed their trees, they placed them near their houses, lights and lampposts.

It was interesting to note the growing confidence of the children over the course of these activities. The teacher noted that she was pleased that she had conceived the project in this way, as she felt that the repetition of the activities helped to reinforce the key learning points.

Later on, we set the Play Doh and circuits out. Six girls squashed together around a small table, which contained Play Doh, LEDs, and batteries. This was typical of this project: children were very keen to participate in all aspects of it, and chose freely when to engage, which sometimes meant that the demand was greater than the space available. There was no sense that girls were resistant to the STEM elements of this work. I had asked the children to discuss and make make things that they would like to see in their neighbourhood in order to improve it, expecting the group to focus on play spaces and equipment but, instead, they decided they wanted more flowers around the estate, and Colleen, Stacy, Gabrielle, and Vicky got busy making them, using the electronics equipment to make the flowers light up. As they made the flowers, they discussed the colours they had used, and made references to their lovely smells. Sarah decided she preferred to make pancakes, although it was not clear if this related to the challenge set, and Vicky began to copy her, whilst Rhiannon watched them all, without making her own model. The girls were very interested in each other’s creations, commenting as they were underway. As they worked on their models, I helped them when necessary with connecting the LEDs and batteries, and talked to them about what they liked about the estate, which included reference to people, dogs, and gardens. Eventually, a number of the girls started rolling the Play Doh and made reference to pancakes, and soon many of the separate colours had been merged into multi-coloured shapes. A few boys walked by and looked at what the girls were doing, but none joined in.