**Setting A, Tuesday 5th December 2017, Fieldnotes of Researcher 1**

***Squishy circuits***

This morning we were using the conductive properties of playdough to make ‘squishy circuits’, enabling the children to combine malleable materials with LED lights. Like yesterday, not all children were interested in the circuit element of the session – some focused on the dough – rolling, flattening and pinching to change its shape. I had some difficulties in making the bulbs light up – Amy and Beth had to remind me that the LEDs have a long and a short arm, and that the positioning of these is important with regard to positive and negative charges. At the time I felt like I should have remembered this and that my mistakes would convey a negative image about my competence to the children, the teachers and to the research team. We talk about the importance of tinkering, trial and error and process over product, but there is a strong engrained sense of the ‘adult needing to ‘get it right’! I’ve thought about this throughout the week and reflected upon other instances in which I couldn’t initially get the materials to do what I wanted them to. It raises issues about the role of the adult in maker experiences: is our role to demonstrate, or to tinker alongside the children? Does it really matter if we make mistakes – perhaps our response to these mistakes is more important? In room two, W experienced a series of unsuccessful circuit-making caused by faulty LEDs and other issues. I really felt for him as he sat alongside other children who were successfully lighting up their models and responding with excitement. However, W persisted until the bulb finally lit up – this took a long time but he didn’t appear to be upset or demotivated. When the bulb failed to illuminate he simply tried a different approach. I talked about this with his teacher, J. She told me that W spends a lot of time with his grandparents and that his granddad is an engineer. W spends time ‘pottering with his granddad’. J told me that W recently came to nursery with a screwdriver in his pocket!

R has been attending nursery for a couple of weeks. He is still settling into nursery life and I thought he seemed a bit surprised to see a new group of adults when he arrived this morning (he wasn’t here yesterday). S went to play in the water tray but his gaze was fixed upon the maker table. A teacher asked him if he wanted to come and join in but S shook his head and continued to watch from the water tray. Towards the end of the session, one of the children attached an LED to his playdough circuit and we were all surprised to discover that its blue light flashed on and off. R noticed this, too and commented ‘it’s like a siren’. At this point, R joined us at the table and Amy found another blue flashing LED. Later, I watched R running around the playground, waving his arms and making a siren noise. Later, R’s teacher told me that police vehicles are a recurring interest for R, both at home and at nursery. This interest seemed to be important to his participation in today’s session.