**Tree Twining activity**

**Team: Environmental scientist, tree scientist, artist, children’s geographer, ethnographer and me (Educaitonalist)**

**Other participants: Children and teachers in the school**

**Field notes:**

Today we were getting together once again as a team to learn about trees, trees measurement and carbon emissions by trees. Our work mainly was about the importance of trees planted in the school playground and how they are helping/protecting us by observing bad carbon and enabling us to breathe in a healthy atmosphere.

We planned this activity together with the science team. This time we could not discuss the plan before we went to the school. It was easter break and Ramadan so one after another we all had to go on holidays to celebrate festivals. We mainly collaborated to finalise the programme via emails.

We team members gathered in the school at around 8:45. When I and Ethnographer reached to the school, we found (the team) standing in the front lawn of the school. They were waiting for us and Environmental geographer was very pleased with the school location. I am still keen to explore more about his views on finding the school location “very good”. I am keen to know how this is good considering the physical sciences perspectives of the project and comparing it with our own (social science). The word “Twinning” in the activity made to think about twining commonalities and differences of our disciplinary knowledge and expertise with which we were approaching the activity today.

We went to the classroom where children were having their registers. We waited for five minutes in the corridors. Environmental geographer introduces himself to the children as it was his first visit. He introduced us all to the children and children was amazingly good to remember different kinds of thing that we do as part of our daily professional lives. One of our colleagues was given the title of “Geography Guy”. What a cool title!

Environmental geographer talked about trees and their role in absorbing carbon.

We took children outside and split them in groups. Each group chose one tree which they will measure as part of the activity. I was joined by a group of children who chose a big giant silver birch tree. We talked about tree; how old it is and what does it call. Children named it Benjamin tree. The tree has massive holes near its roots which were homes of different bugs including tree lice, beetles, and ant. There were spider webs in some tiny holes. Children started touching the tree trunk and called it bumpy, barky, smooth, rough, hard, scorched, and shaggy. They said this whilst hugging the tree and by touching tree bark with their hands. Children were careful of bugs living in the tree trunk and warning one another not to kill these “killing bugs in forbidden in the animal kingdom”.

We had conversation about good and bad carbon through a role play activity which Environmental geographer did with children. The very first group was more of fun when children quickly guessed whether diamond and coal are good carbon or bad carbon. Some of them took time to decide and some remained confused by changing their places between good and bad carbon line. The geographer’s prompts were helpful in making children understand the role of trees and bad carbon emission. The second group work came up with amazing, sophisticated questions. Same was the case with the third (last) group of children.

Children then was asked to do some measurements of the tree. We used special tapes to measure circumference and diameter of the tree. Children were given a sheet to record these measurements in each group. Children took turned to measure the tree. We had almost similar measurements each time we measure the tree with different children of the group. There was a sight difference of .5 and 1 or 2 cm more or less.

Along with measuring the tree, I noticed children now were trained to be researchers as they were keen to record what is going on in the group as part of measuring the tree activity. Some of them took the voice recorder to record their thoughts as an interview/commentary. Some of them interviewed one another (picking up what happened in the previous tree planting activity). Some were videoing their peers and asking peers to video them when they are doing tree measurements. We missed note taking as children took their notebooks at home and did not bring these back.

Once we had tree measurement the geographer helped us to find out how much carbon trees have absorbed in them. We also were introduced with the idea of measuring tree height with razor scanner.

Children get excited to see scanner calling these video cameras. Since I had worked with scanner before in another school, so I explained how we can measure a tree height by noting the top of the tree and bottom of the tree via scanner and reading the heights from the scanner screen (on the side). Our tree was 14.8 meters long. We checked it twice and we got the same measurement.

I noticed children coming up with our ways of measuring tree heights such as putting their palms of the tree and measuring it 1, 2 and 9 palms/hands. I am sure the tree was much taller than that as children could only reach to the half the tree trunk. Children also hugged the tree as a group to see how many children can hug the tree together. In our group, three children hugged the tree together to form a circle to judge the circumference of the tree whilst we were waiting for the measuring tape.

I was lucky to work with the same tree with all three different classes and group of the children, so I became very familiar with the feature of the tree we measured during the day. The tree got different names by different group of the children. Children engaged different bodily and sensual movement to feel the bark of the same tree. Different discoveries of bugs and bugs homes were made in the same tree making me think about the tree being and becoming a different thing for different groups of the children or for different children working in the same group.

We went to the other trees planted nearby and children looked at the small and big size of the tree trunks. Those trees were also touched and felt by the children to sense the surface of their trunks. Noticing children’s engagement with tree, I realised how trees were paid attention to physically, socially, and scientifically opening avenue of different forms of knowledge. We learned about features and characteristics of the tree, tree and other living and non-living species and role of tree in protecting us and planet. It was amazing to see creativity that tree has offered to children whilst learning about carbon.

In the second group, two children from my group were looking at tree they have planted in the school ground. They started pointing to the trees they have planted and observing how are their growing. There were questions around a tree that a child has planted and whether it is still alive as it looked like a stick whilst other saplings have some tiny leaves on them. For a few saplings, I felt the children’s touch might be a bit hard as children were continuing sharing the saplings. Children might be just checking and enjoying but I was thinking about newly grown saplings and their resistance against hard human touching.

I missed the last part of the activity, but I am curious to listen to what children have recorded in the voice recorders and what they have filmed. As when children were doing this, they were by themselves. This resembles to what Geertz calls for ethnographic research when familiar things become strange and strange become familiar.

I noticed using different devices such as measuring tapes and laser scanner intrigued children’s interest in the research activity. None of us except the scientists were expert in finding out tree height using laser scanner, following children’s curiosity we became engaged with scanning the height through the scanner.

I am left with a few thoughts on how we can make this interactive and engaging and self-directed lesson being a part of a school routine. The same thinking was shared by one of the class teachers. One of the key observations whilst being with children and trees is that we learn better and understand one another better once we are twinned with a sense of relatedness. The activities the children were engaged in. some of them took it seriously for some it was just a fun and focus was on recording stuff which children themselves and their peers were doing. The activities become a mixture of learning about trees, photography, interviewing and recording observations, feeling, touching and sensing trees.