**Illustrating the Impacts of the STEM Ambassadors programme**

**Case Study:** Institute of Ageing and Chronic Disease (IACD), University of Liverpool outreach day with KIND (Kids in Need and Distress).

**Overview of the event:** A one day **“Wow Science Liverpool”** event took place on 17th August 2016. The event not only showcased some of the work we do in the Institute and how it can be of interest to school children but also to show how science can be fun and interesting!

**Why KIND (Kids in Need and Distress)?** KIND is a local charity based in Liverpool city centre, less than a mile away from our university campus. Since 1975, KIND has been helping make a difference to the lives of thousands of disadvantaged children and families from across Liverpool and Merseyside. KIND believes that education is key to helping children, young people and their families overcome disadvantage and realise their potential. By offering them access to a range of education, the charity aims to develop their knowledge and practical skills for a brighter, better future, no matter what their background or needs are.

**Why the IACD wanted to work with KIND and who got involved.** Having visited the KIND centre at the old city farm site and been in awe of all the work they do, the IACD team felt that this group of children were likely to be missed by other conventional outreach means. We therefore saw this as a crucial outreach opportunity and wanted to offer all we had to inspire the children. Whilst the event was organised by the IACD post-doc group, 35 members of IACD got involved on the day, this involved academics, professional/technical services, post-docs and PhD students who all helped make the day a great success. We are the first Institute here at the University of Liverpool to engage with disadvantaged children but hope that our experiences will lead to further work with this.

**Impact on the young children:** 36 children aged 5-14 attended the “Wow Science Liverpool” day during the summer school at KIND and spent time going round 9 stations all with different learning objectives that could be strongly linked to aspects of the national curriculum. Each station was highly interactive and tailored for the specific age groups and ended with a quiz and some facts and questions in their take home “lab book”. Each station is outlined in the table below with the learning objectives also shown. We were informed by the staff at KIND that these children might be incredibly shy and that they believe working in small groups gets the best out of each child. All the children got thoroughly involved in the event to varying degrees and all the feedback we received from the children was remarkable. This can be shown clearly in the video link: <http://kind.org.uk/articles/wow-science-day-video>. Many of the children were heard saying things like “science is amazing”, “we used to not like science in school but its brilliant” and many asked how we have got to do what we do now.

**Impact on teachers/organisers:** The organisers/staff at KIND too thoroughly enjoyed the day, and a quote from the thank-you letter we received after the event stated that “you have given our children and staff a real insight into science, in its many and varied forms. I don’t think it’s an exaggeration to say that you have ignited an interest that hopefully will inspire our children for the future”.

**Impact on STEM ambassadors:** 16 members of the IACD team who attended the KIND event were STEM ambassadors. All of the team not only enjoyed the event but realised how important it is to reach out, engage and inform children of what science really is about. We tried to reaffirm how learning about the body etc. in school is vital for the real working world and made us appreciate how fortunate we are to be in STEM based careers. One skill required to do scientific research in academia is also the ability to engage with others in a lay format and this event certainly made sure all staff could inform others in this manner.

**Impact on STEM employers:** This event was not set up to raise the profile of the University directly but to help a very noble charity in our city. However, this event highlighted that we as a group should try to engage in impact work much more regularly. The spin off effect is that we now have a great working relationship with KIND and hopefully can engage with them again in the future to inspire more young children and boost our outreach profile. We were fortunate to have received some funding for the event from The Physiological Society to support the purchasing of anatomical models and other supplies to carry out the event and therefore they are aware of the event and will hopefully be able to inform other members of the society about it and how much of a success it was and encourage others to do similar outreach activities.

**Future Plans:** We are hoping to carry out more Wow Science days with KIND in the coming months/years and hopefully as previously mentioned inspire other children about science that they can bring back to the classroom and maybe inspire the next generation of scientists.

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