

I'm a Scientist Get me OUT of here

Interim Event Report – November 2012

I'm a Scientist, Get me out of here

The screenshot shows the 'Cancer Zone' page of the 'I'm a Scientist, Get me out of here' website. At the top, there's a navigation bar with 'Zone Home' and 'Scientists' tabs, a search bar, and 'Ask?', 'Chat', and 'Vote' buttons. A 'Meet the Scientists...' banner features photos of five scientists: Susanne, Robert (marked as 'WINNER!'), Pedro, Mariana, and Clare. Below this, five profile cards are displayed, each containing a photo, a 'Me and my Work' bio, a 'Status' update, and a 'Read more about me' link. The profiles are for Susanne Muekusch, Robert Insall, Pedro Velica, Mariana Campos, and Clare Taylor.

I'm a Scientist, Get me out of here has been running since March 2008. In November 2011 Gallomanor were awarded a Society Award from the Wellcome Trust to part support *I'm a Scientist* for a further 3 years. 3 zones were run in November 2012.



Summary:

We made a few changes to how the event was run this time around. We only invited teachers who had taken part before, tried a new online registration system and ran the three zones with themes that tied into what students were learning at that time.

1. Opening the event only to teachers who had taken part before

These teachers already knew how the event worked, so we didn't need to post out another teacher pack to them to explain it all. We didn't know how many teachers would want to take part. We invited 613 teachers who'd taken part before, and 29 of these took part with nearly 700 students. The average number of teachers for the November event was higher than average but the number of students was lower, suggesting teachers are taking part with fewer classes. In the future we could try and increase the number of students that took part, either through having more teachers, or more classes per teacher.

2. Using a new online registration system

I'm a Scientist is an online science engagement event, yet the student registration process in the past has involved teachers handing out access code cards for the students to register with. This time we tried a new system where teachers logged on to the site with their username and password from when they took part before. They could then select which zone they wanted to be in this event, and generate a URL from which their students register into that zone.

There were some hiccups with the new system. We originally coded the student registration URL to expire after an hour, so that it couldn't be used to register over and over again if it got into the wrong hands. This caused problem for teachers so we changed it to not expire. There was also some confusion with generating the student registration URL in the wrong zone.

After we apologised to teachers for the problems they experienced some replied:

"Even though there were problems, the paperless idea is much better and more straight forward (once you get the hang of it). The staff that I introduced to IAS said they and the students enjoyed it and would like to have another go sometime (even after the hiccups)"

Despite the teething problems, online registration is the way forward. It allows teachers to get their colleagues involved during the event, not having to wait until next time round to take part. It gives teachers much more flexibility – they can bring more classes on in whatever zone they want.

In future events we'll still send out teacher packs for a certain number of classes per zone, but include extra teacher log ins for colleagues that see it in action. We can then open online registration during the event so teachers can take more classes on in less busy zones.

3. Running zones that tie in with what's being taught that term

"How did you know what topics are taught when? Will vary between schools and by A level specification"

We always ask teachers what zones they want to see, but we went one step further in November and asked teachers what they'll be teaching during the event. The most popular (biomedical) topics were Cancer, Cells and Genes. All 6 teachers who filled in the post event survey said that the zone themes made *I'm a Scientist* more appealing (none said no change or less appealing). They explained this saying:

"Easier to link with a theme in the A level specification"

"It fitted into topics that were being covered and so students had a better understanding of what they were discussing"

"I used it as an extension activity within the course they were already doing which was great. A really good idea to do this"

"They were appealing on terms of A level content and extension so students could ask more informed questions"

The zone themes encouraged discussions around cancer, cells and genes. Students wanted to know how the scientists' work could help cure cancer, what motivated the scientists to study their topic, what causes genetic diseases and how gene therapy works. Unusually for most *I'm a Scientist* events there weren't many questions about space – the zone themes seemed to distract the students from their usual favourite topic.

It's worth running a few themed zones in each event that tie in with what's being taught then, particularly in the November event when students are learning the content, rather than the June event after exams when teachers might just be starting on a new syllabus.

The changes we made didn't decrease the enjoyment of the event – scientists, teacher and students were all very positive about their experience.

Scientists were very positive about their experience. All the scientists who gave feedback would recommend taking part to a colleague and would take part again, have a better understanding of how students view science and want to do more public engagement. They all thought it improved their communication skills. 92% were able to engage and communicate with the student effectively, and they thought both the CHAT and ASK sections were useful for communicating with students.

Students and teachers were very positive about their experience. 94% of students surveyed enjoyed taking part and they all now understand what scientists do better. 53% of students used the site at home as well as at school. The CHAT section was by far the students' favourite part – 77% liked it best whereas 12% liked the ASK section best, which is pretty similar to past events. The most important factors when deciding who to vote for was what the scientist would do with the money, and if their research was important and interesting.

83% of teachers think their students are now more aware of careers in science, and more confident in asking questions about science. All the teachers who gave us feedback would participate again and recommended the event to a colleague.

Key Figures:

	Whole November 2012 event	November 2012 Zones average	Zones average from all other zones in 2011-2012
Number of scientists	15	5	5
Number of registered students	859	286	297
Number of schools	29	10	6
% of active students (ASK, CHAT, VOTE or comment)	-	79%	84%
Number of questions asked	1,148	383	910
Number of questions approved	529	176	377
% of questions approved	-	46%	41%
% of students that asked questions	-	31%	54%
Number of questions marked as duplicates	197	66	169
Number of answers given	1,520	507	779
Number of answers per question	-	2.9	2.1
Total number of comments	224	75	151
Number of votes	632	211	271
Number of live chats	36	12	11
Number of lines of live chat	13,144	4,381	4,503
% of students that chatted	-	67%	61%

How did the November event compare?

The November zones weren't as busy as previous zones. In most areas they didn't meet the average of previous zones. They were noticeably below average in the number of questions asked in each zone – nearly the same number of students asked under half the number of questions than average, and the number of comments was half that of previous zones. Previously over half the students asked a question, but this was much lower in November, at 31%. The scientists gave more answers per question in November, maybe because there were fewer questions so they had more time to answer each question.

We don't know why so few questions were asked this time round, but it looks like the students focussed more on the live chats. The number of live chats and the lines of live chat written met the previous average, and the % of students that chatted was greater in November than previously. This indicates that students participated when live chats were arranged in class, but were less keen to engage in their own time by asking questions. We emphasised booking live chats to teachers when they registered, so they may have pushed these rather than the ASK section.

This might also be due to the year groups of students taking part. Comments from teachers indicate that lots were taking part with A Level students, who we've found ask less, but more in depth, questions. We need to do more analysis to see whether the year groups were different in November to previously. Students might also simply be busier with work in November than March or June, giving them less time to explore the site and ASK questions in their own time.

The % of actively engaged students dropped during this event by 5% (10% from the average from March and June 2012), which might be due to the changed registration process. We know that some teachers had confusion over which zone they were in, so their students registered in more than one zone but only used their account in their correct zone. This would leave accounts with no activity. However, the % of actively engaged students was also lower at 79% in the 3 zones run consecutively in Ireland. Their registration process wouldn't have affected this, so it might be something to do with the time of year.

Popular topics covered:

The wordles below show the common words from live chats and questions across all 3 zones, with common words like 'and', 'scientist', 'hello' and 'what' removed. The top wordle is all text in live chats from the three November zones and the second is all live chat text from all zones run in 2012.

Keywords from live chats in the 3 zones. The size of the word represents its popularity.



Keywords from live chats in all 26 zones run in 2012. The size of the word represents its popularity.



Were topics in the November event typical of I'm a Scientist?

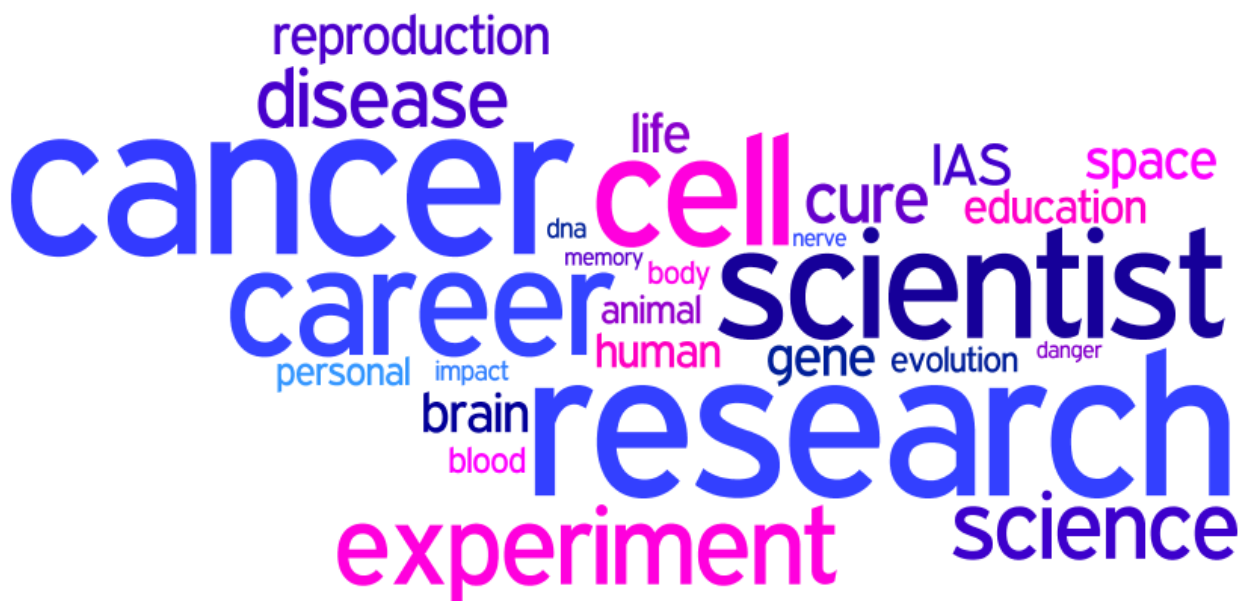
The three zones in November 2012 were all themed, and cancer and cells stand out as being big topics of conversation in the live chats. Genes and DNA are much smaller, but this is likely due to Genes Zone have nearly half the lines of live chat in the other two zones.

The wordle showing text from all live chats in the 26 zones in 2012 shows that students are primarily asking scientists about their work. Discussions on work, jobs and research are more prominent than in the wordle from November 2012, where the zone themes overshadow them. This indicates that while the zone theme influences what science topics the students ask about, they will ask about being a scientist, work and careers regardless of the zone.

The most popular science topics of discussion in 2012 were cells, cancer, animals, the world, space, lasers, the brain, earth and light. Having themed zones on these topics will have increased these counts, but it still reflects what students want to talk about.

Keywords of questions in the three November 2012 zones shows what students wanted to know about in the ASK section. Again, students asked about the zone themes and also about being a scientist, careers and the scientists' research and the research process. These categories were added by the moderators when approving a question but show that the focus of questions asked in ASK is similar to those asked in the live CHAT.

Keywords of questions asked in the 3 zones. The size of the word represents its popularity.



Schools and scientists took part from all over the UK:



Locations of scientists (in blue) and schools (in red) in the UK across all 3 zones in I'm a Scientist in November 2012.

The schools that took part this time round had all taken part before, so we weren't expecting to fill in any of the gaps in distribution over the UK. We ran an event in Ireland at the same time, although one teacher in Northern Ireland decided to take part in the UK event instead.