



## Evaluation report

# Body Zone

November 2014

Funded by The Physiological Society

The screenshot shows the 'Body Zone' website interface. At the top, there is a navigation bar with the 'I'm a Scientist' logo, a 'Meet the Scientists...' section featuring five scientists (Theresa, Katie, Giovanna, Duane, Andy), and a 'Body Zone' logo. Below the navigation bar, there are buttons for 'Ask?', 'Chat', and 'Vote'. The main content area displays five scientist profiles, each with a photo, name, and a brief description of their work. The profiles are: Theresa Mina, Katie Pickering (marked as a 'WINNER!'), Giovanna Bermano, Duane Mellor, and Andrew Philp. Each profile includes a 'Read more about me' link and a 'Latest Question' or 'Latest Comment' section. The interface also features a search bar and a 'Zone Home' button.



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### 1. Executive summary

The Body Zone in *I'm a Scientist, Get me out of here!* 10<sup>th</sup> – 21<sup>st</sup> November 2014 was **successful**:

1. *I'm a Scientist* November 2014 has been our busiest event so far, and the Body Zone has been one of the busiest zones within the event. In all measures of activity such as the number of students, number of live chats, number of votes, and lines of live chats, the zone was above the average of all zones we've done until now.
2. The Body Zone was particularly popular with teachers, it featured a steady influx of ASK questions that lead to more than 1,150 questions asked, of which more than 700 were approved and sent to the scientists.
3. The students really got into the zone theme. Students asked lots of questions on the function, purpose and statistics of parts of the anatomy. There were also a lot of questions on diet, nutrition, exercise, obesity, childhood development, and diabetes.
4. The scientists were challenged within and beyond their areas of research. All engaged well and were keen to answer questions and take part in the live chats.
5. The drop out rate for schools was very low in the Body Zone – 14 of the 16 schools given places turned up with their students.

The Body Zone was **less successful** in that:

1. It was more of a challenge than expected to recruit the 5 scientists in the zone – although we originally had more than 50 Physiological Society (PhySoc) members in our lists, very few of them researched the theme of obesity. After consulting with PhySoc, we gave places to five scientists who covered a wide range of the spectrum of scientists working in obesity. However, none of them were PhySoc members. We need to find new ways of contacting PhySoc members, maybe through society newsletters, or contacting relevant members of the society who can spread the word around.

## 2. Introduction and background

### *I'm a Scientist, Get me out of here! (IAS)*

*I'm a Scientist, Get me out of here!* is an online event where students get to meet and interact with real scientists. It's an X Factor-style competition between the scientists, where students are the judges.



Students submit questions which the scientists will try to answer by the next day. Students then have live text-based chats with the scientists, where they ask questions, learn more about the scientists, and let scientists know their opinions. It takes place online over a two week period.

The event ran for from 10<sup>th</sup> to 21<sup>st</sup> November 2014. In each zone there are 5 scientists and around 350 school students. IAS is designed to support the Working Scientifically curriculum and to bring real science to life for students, supported by carefully developed classroom resources. It helps:

- Develop discussion and critical thinking skills
- Cover key concepts in Working Scientifically
- Get students engaged with science
- Provide lesson plans, information sheets and resources for different ages and ability levels, between years 9 – 13

### *The Physiological Society*

Physiology is an essential discipline which seeks to understand how the human body works; the study of how cells, organs and muscles interact contributes crucial insight into human performance. The Physiological Society



brings together more than 3,000 scientists from over 60 countries, and since their foundation in 1876, their Members have made significant contributions to the knowledge of biological systems.

The Physiological Society is committed to engaging with public audiences. Sponsoring *I'm a Scientist* meets many of their aims for outreach, including inspiring younger people to study physiology. They fund public engagement projects like IAS through their [Public Engagement grants](#) scheme.

The Body Zone was designed to contribute to the 2014 Physiological Society focus on Understanding Obesity, and help to reach secondary school students, at an age where we've all become more aware of our appearance and lifestyle.

### 3. Activity in the zone

The Body Zone ran alongside 9 other zones in *I'm a Scientist* in November 2014. The Body Zone was above average – even in our busiest event so far – in all measures of activity such as the number of students, number of live chats, questions asked, number of votes, and lines of live chats. 88% of the 478 students who registered asked a question, talked in a live chat, voted or left a comment.

The Body Zone started off busy during the first week, and became a bit quieter in the second week. All of the scientists answered questions and took part in live chats to an event level of activity.

#### Page views of various pages in the Human Limits Zone

Zone page	Page views
<b>Total zone</b>	28,509
<b>ASK page</b>	3,227
<b>CHAT page</b>	2,608
<b>VOTE page</b>	1,444
<b>Katie Pickering</b>	839
<b>Andrew Philp</b>	670
<b>Duane Mellor</b>	628
<b>Giovanna Bermano</b>	471
<b>Theresia Mina</b>	735

#### Figures for the Body Zone, the average of all 10 zones in November 2014, and the whole year (March, June and November 2014)

	Body Zone	Average Nov 2014	Average in 2014
<b>Registered students</b>	478	459	369
<b>% of active students</b>	88%	88%	83%
<b>Questions asked</b>	1168	894	542
<b>Questions approved</b>	716	396	293
<b>Answers given</b>	1487	796	555
<b>Comments</b>	203	99	75
<b>Votes</b>	448	402	305
<b>Lines of live chat</b>	7,021	6,507	3,675
<b>Live chats</b>	24	21	15
<b>Schools</b>	14	13	9

## 4. Questions and live chats

There were a lot of very good questions in this zone. There seemed to be no end of curiosity about the function, purpose and statistics of parts of the anatomy. In addition to this there were a lot of questions on diet, nutrition, exercise, obesity, childhood development, chocolate, diabetes, smartphones and social media, reflecting the research of the scientists.

There were also personal questions about the scientists and their likes and dislikes, combined with unusual questions and a genuine interest in the work of the scientists that seemed to keep them motivated to maintain their efforts right to the end of the competition.

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### Example questions in the zone

*"Why is your tongue red?"*

*"what does our appendix do?"*

*"How does glucose effect our body?"*

*"Have you done any dissection. What have you done?"*

*"Why so we dream, also why do we get bad dreams????"*

*"why are you only just finding a cure for Ebola, when it has been out for years?"*

*"What, in your opinion, was the best scientific breakthrough?"*

*"Why do some people get almost no spots and some people get loads?"*

*"Why can't we tickle ourselves?"*

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### Examples of good engagement

All the scientists were very good at managing the website submissions, responding quickly to a huge number of questions. The scientists engaged with some schools during chats where it was evident the teachers and students were enjoying the conversation and it was a change to the usual classroom dynamic.

*"how quickly can you grow, my teacher is short and is asking for a cure?" – nduclayan7nrK, student*

*"@nduclayan7nrK haha, grab their arms and legs and pull..." – Andy Philp, scientist*

*"will do!" – nduclayan7nrK, student*

*"@nduclayan7nrK haha, although that didn't come from me" – Andy Philp, scientist*

*"Thank you @katie, @andy and @MODamellia for your time and expertise today, it is much appreciated and I have lots of noisy excited students here in Norfolk!" – Mr B, teacher*

During the open live chat on the final day there was a prolonged conversation between Katie, Andy and a 10 year old student using the username R2D2.

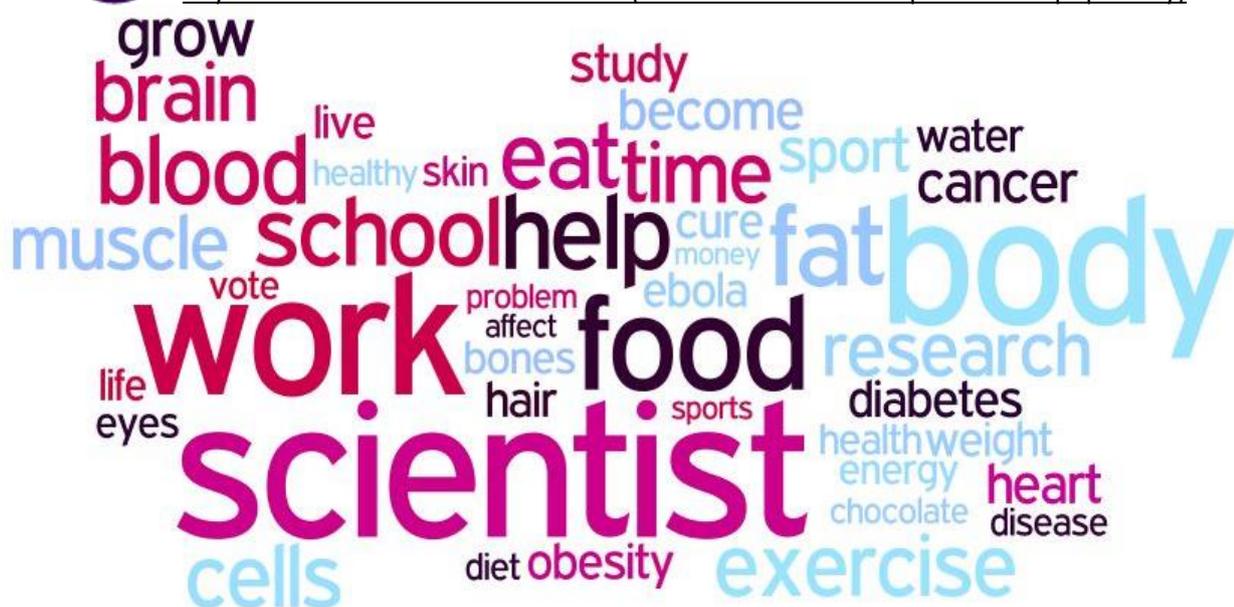
## Ask ?

<i>Keyword</i>	<i>Number of times</i>	<i>Keyword</i>	<i>Number of times</i>
anatomy	58	preference	21
body	50	brain	19
food	45	career	19
health	38	hair	19
work	33	physiology	18
personal	32	muscle	17
favourite	32	fat	16
bone	28	biology	16
disease	26	human	16
nutrition	23	research	16

**Key words in the Body Zone.** Moderators tag the keywords in each question so when people are browsing the website, the site can suggest 'related questions' on a similar topic that they might also want to read. The size of the word represents its popularity; the numbers indicate how many times each keyword was used.

## Chat

Keywords from live chats in the zone (the size of the word represents its popularity)



## 5. Participation

### Scientists

The 5 scientists in the Body Zone were based at a range of institutions in the UK.

There were a total of 448 votes cast in the Body Zone. There were four rounds of voting with one scientist evicted at each round. Students could cast their vote in each round. **Katie Pickering** was crowned the winner of the Body Zone.



Scientist	Institute	Brief description of their research, written by the scientist for rating by students & teachers	Result	% of votes	Number of profile views
<a href="#">Katie Pickering</a>	Leeds Beckett University	Looking into how we use Smartphone technology and physical activity apps to reduce obesity and the diseases linked to being physically inactive.	1st	34%	839
<a href="#">Andrew Philp</a>	University of Birmingham	I am an physiologist, fascinated about how exercise activates genes and proteins to make muscle bigger, stronger and more fatigue resistant	2nd	33%	670
<a href="#">Duane Mellor</a>	University of Nottingham	Working out how food can improve health, especially reduce heart disease risk in people with diabetes, perhaps not in the ways you might think I have been using special type of chocolates to make arteries healthier	3rd	15%	628
<a href="#">Giovanna Bermano</a>	Institute for Health and Wellbeing Research	Apple or pear? which one should I be? Body shape is important in relation to obesity and the risk of developing obesity-associated diseases, I do research to answer these questions.	4th	12%	471
<a href="#">Theresia Mina</a>	British Heart Foundation Centre for Cardiovascular Sciences	I want to find out the effect of obesity and stress during pregnancy to child's health and behaviour development.	5th	7%	735
The five scientists in the Body Zone					

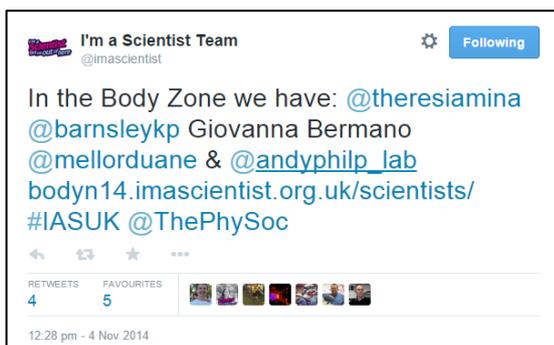
## Schools

14 of the 16 schools given places in the Body Zone turned up. This dropout rate is lower than expected. As shown on the map below there's a good spread of school locations round the country, with a few clustered in bigger cities like London and Manchester.



## 6. Publicity

*I'm a Scientist* (@imascientist) regularly tweeted event updates and popular questions asked across all zones and linked to @ThePhySoc. Four of the Body scientists (Theresa, Katie, Duane and Andy) were on Twitter and tweeted about the event.



## 7. Benefits and quotes

### Scientists

Scientists improved their communication skills and some even felt re-energised about science and their research. They also were challenged by the questions asked. Here are some of their comments:

*“It was an amazing experience being in the live chat rooms and answering questions with some phenomenal scientists” – Katie Pickering, scientist*

*“There has been a really diverse range of questions. I have particularly liked the ones around asking advice on how to get into science as there are so many different areas and it's about finding the one that suits you and your interests. The more interest we can generate about science the better future we have for the next generation of scientists” – scientist*

*“A bit broader than I expected actually (universe, genetics, religion etc). Any time I can bang on about the importance of physical activity normally makes me happy 😊” – Andy Philp, scientist*

### Students & Teachers

Students gained a more realistic view on what scientists actually do and what scientists are like.

They engaged in discussions with scientists, after scientists answered their questions. Students felt empowered enough to tell scientists their views and debate topics with them. It also showed students that scientists don't know the answer to everything.

Many Body Zone students left positive comments during the live chats or in the ASK section:

*“Ok bye Katie it was nice talking to you. I have been wondering where you were and if you were real” – R2D2, student.*

*“Thank you very much, that has gone in my brain now” – student*

*“thank,s very much would like to hear more about it thank,you your a great scientist thank,you” – student*

*“WOW I find that fascinating isn't it a small world” – student*

*“Thank you @katie, @andy and @MODamellia for your time and expertise today, it is much appreciated and I have lots of noisy excited students here in Norfolk! – Mr B., teacher*