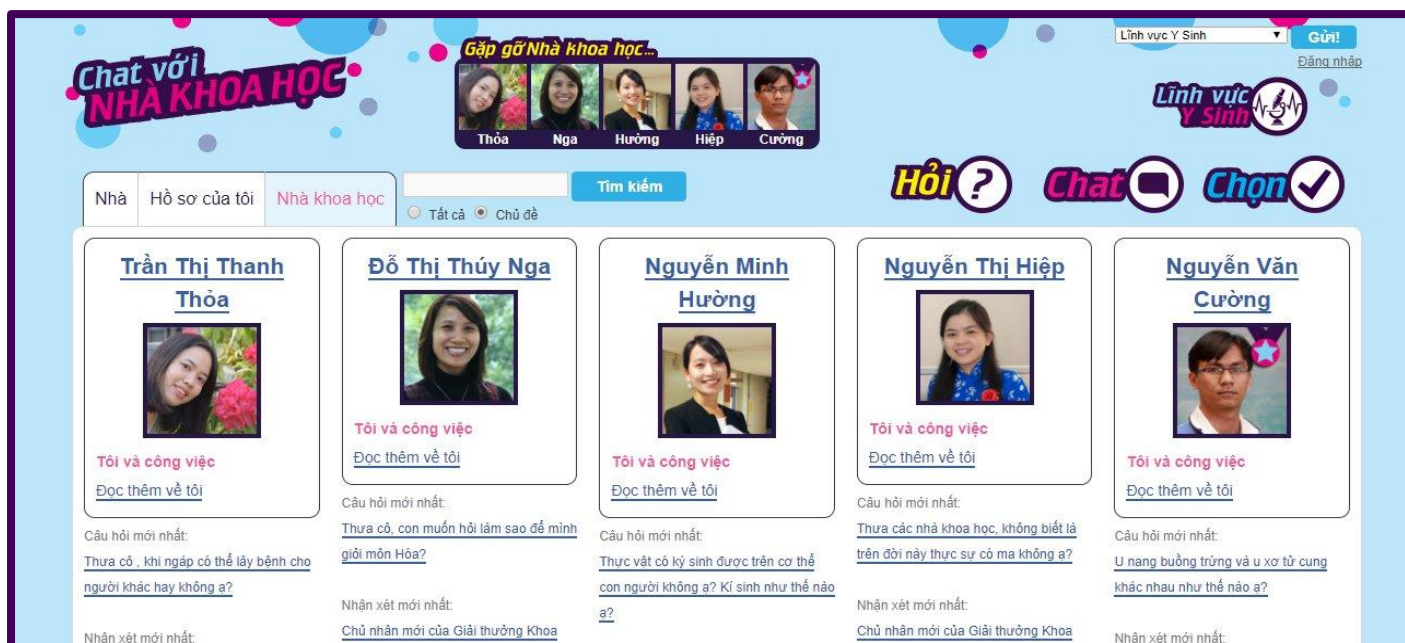

**Chat với
NHÀ KHOA HỌC**

I'm a Scientist Vietnam Final Evaluation Report

October 2017



In 2015, Wellcome funded Gallomanor to work with OUCRU-Wellcome Trust research programme to pilot and roll out *I'm a Scientist, Get me out of here* in Vietnam.

This report summarises the work done and the impact on students, teachers and scientists. The intended audience is Wellcome, OUCRU, and potential partners in other countries looking to develop digital science engagement programmes.

Executive Summary

I'm a Scientist Vietnam has been the launch with the biggest risk of failure. A risk of failure because of the huge number and scale of unknowns.

A new culture. A new education environment. A new research environment. A new language. A new name. A new time zone. A new partner.

We knew very little about any of these at the start of the project.

What have we learned?

We now know that students in Vietnam have a thirst for knowledge. Like school students everywhere they have lots of questions and our online format lets loose that deluge of questions. But they are also different. Vietnamese culture is very deferential and polite. It is not considered appropriate to ask adults personal questions unless they have been explicitly invited. The I'm a ... format worked in Vietnam but it is slightly different.

We found that researchers within OUCRU were keen to take part and engage with schools. It is part of the research culture in a Wellcome funded organisation. However it was more difficult to get non-OUCRU researchers involved. The embedded Public Engagement culture in the UK is not the norm.

We knew Vietnamese wouldn't be something to pick up quickly. However the complexities of the language were eye-opening. There is no word for "you". There are multitude of pronouns to use depending on whom the person is referring. More importantly from a project point of view is the way the language is constructed. A complex word like "*Scientist*" is translated as "*Nhà khoa học*". *Học* also means *learn*. Our keyword system for question moderation is based on stripping out stop words and highlighting the key words left. It doesn't work in languages such as Vietnamese.

The most important thing however was not a new lesson. Schools engagement in such a new environment can only happen with an excellent, organised and well-connected local partner. Fortunately the OUCRU public engagement team fitted that description. They were true partners on the projects. Learning and leading. As the project developed they did more leading and currently are taking the project forward independently with only support from Gallomanor.

A handwritten signature in black ink, appearing to read 'Shane McCracken', with a long horizontal line extending from the end of the signature.

Shane McCracken

Director, Gallomanor Communications Ltd

October 2017

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Background

Purpose of project

Chat với Nhà khoa học (*I'm a Scientist Vietnam*, IAS — chatvoinhakhoahoc.vn) is an online schools science engagement project which aims to increase school students' aspirations to study science, help them better understand how science works, and perhaps encourage them to become scientists themselves.

Following success of the project in other countries (Kenya) and languages (Spanish) we wished to test if the concept and format would work in a radically different culture to the UK.

Our Vietnam partner, the Oxford University Clinical Research Unit, based in Ho Chi Minh City, Vietnam wanted to develop new ways of engaging schools with science; including helping to reach schools to which it is normally more difficult to travel.

Our grant application identified four key challenges:

- 1. Language** — At the time of application this was due to be the first foreign language version of the project. Our Spanish partners however, took this accolade before Vietnam. The challenges for Vietnamese were different though. The Spanish version was developed internally with a Spanish native project manager with two years' experience working on IAS. The Vietnamese team had no previous experience with IAS.
- 2. Collaborative working** — Could we work effectively with a 7 hour time difference?
- 3. Government procedures** — The need for government permissions reaches into Vietnamese educational activities deeply.
- 4. Local management** — Could we transfer the skills required to run the event?

Objectives

Our specific objectives were explained as:

- Research and implement changes to the IAS format and website which will allow the event to be used throughout Vietnam.
- Get over 800 secondary school students aged 11-18 from HCMC and across Vietnam to better understand the research process and the opportunities that science can provide them.
 - We fell slightly short of this figure with 768 registered students.
- Build capacity in Vietnam to run the event autonomously.
- We want to encourage more students to study science, and we also want all students to at least better understand science and how science works.

Outputs

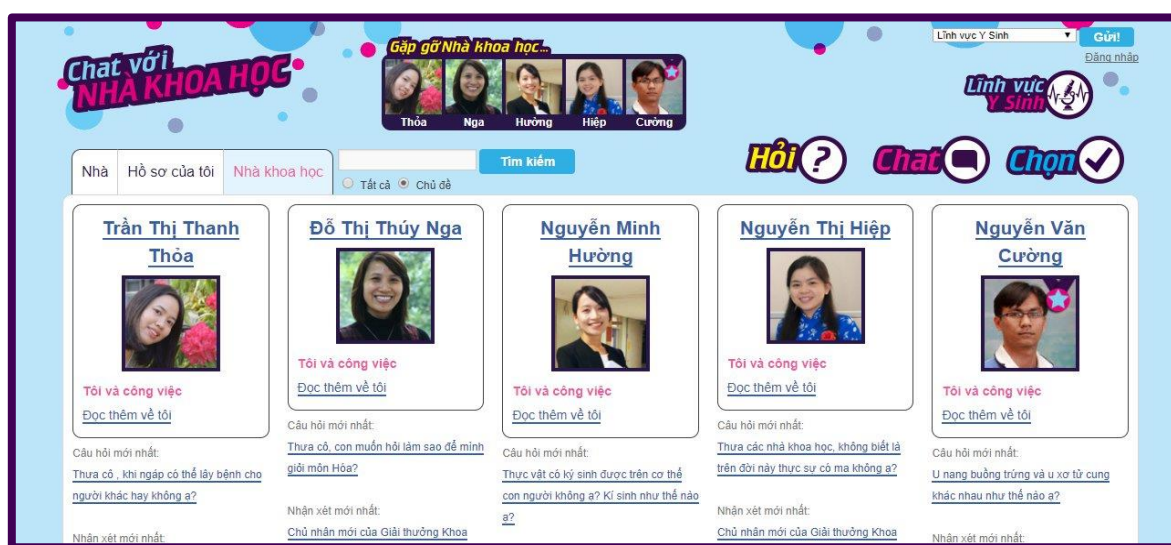
Our outputs were:

- Evaluation and learning of how the event can and should be implemented in SE Asia.
 - Our combined knowledge of the implementation of the project has greatly increased, yet we still recognise that each country will have its own unique challenges.
- 4 zones of IAS run involving 20 Vietnamese scientists and **over 800 Vietnamese students.**
- Revised teacher packs specifically adjusted for Vietnamese education system.
- Promotional film, provided online and DVD, showing how the event benefits students and scientists.
- Vietnamese moderator team trained and briefed on how to run the event.

Description of I'm a Scientist

I'm a Scientist Vietnam, Chat Với Nhà Khoa Học, is an online science outreach project that gets Vietnamese secondary school students connected with Vietnamese scientists. It takes place at chatvoinhakhoahoc.vn.

The students read the scientists' profiles, ask them questions, have conversations in real-time text chats and vote for the scientist they want to win. The scientist with the highest vote will receive a school's engagement prize and use it to organize another science activity for school students.



Students are brought to the site by their teachers who are supported by teaching resources that get the students using their critical thinking skills about scientists.

The aims of the project are to:

- Get secondary school students to better understand science, the research process, and the opportunities that science can provide them.
- Provide scientists a better understanding of what non-scientists think about their research.
- Build relationships between scientists and schools.
- Motivate students to study science by correcting stereotypes and myths they have about scientists.
- Help students understand that science could be a career choice for them.
- Help scientists become better communicators of science.

Partners

Gallomanor Communications Ltd



Gallomanor created the *I'm a Scientist* format in 2008 in the UK. Since then it has grown to connect 20,000 students and 250 scientists and engineers every year in the UK and Ireland. It has also expanded to Australia, Malaysia, Kenya, Spain and the USA in addition to this Vietnam project.

Gallomanor is a private company with a mission to connect organisations and communities for social good.

Oxford University Clinical Research Unit Vietnam



Oxford University Clinical Research Unit in Vietnam (OUCRU) was established in 1991 and is one of the Wellcome Trust Major Overseas Programmes. It is based within the Ho Chi Minh City (HCMC) **Hospital for Tropical Diseases** (HTD), a tertiary referral hospital for infectious diseases for southern Vietnam, under the direction of the Health Service of Ho Chi Minh City and the Ministry of Health.

OUCRU has a large clinical and scientific research programme which focuses on the most significant infectious diseases in Vietnam. OUCRU has established a formal training programme for Vietnamese and expatriate clinicians and scientists in partnership with HTD HCMC and NHTD Hanoi, the Health Services of Ho Chi Minh City and Hanoi, and national universities. OUCRU promotes better understanding and communication of science and health issues in the social, cultural and historical context of communities.

The OUCRU public engagement team aims to bring the local communities together with the scientists by involving them in the research, and by improving understanding of the public's motivations and perceptions. Initiatives such as science theatre productions and media writing generate dialogue and help to develop appreciation of value and need for scientific research.

Center of Science and Technology Development for Youth (TST)



Center of Science and Technology Development for Youth (TST) in Ho Chi Minh City, Vietnam is a government association representing school students interested in science and technology across the city. Through TST, the IAS project reached many school students in Ho Chi Minh City for the improvement of science education.

Schools and scientists were selected for the pilot event through coordination between OUCRU and TST.

Khan Quang Do Magazine



Khan Quang Do Magazine in Ho Chi Minh City, Vietnam is a magazine for teenagers published weekly in the central and southern Vietnam, with an estimated readership of 65,000 per week. Established in 1977, the editorial office has operated under the management of the Youth Union of Ho Chi Minh City with a wide networking with schools.

Khan Quang Do Magazine was in charge of school recruitment for the three events in 2017.

Wellcome



Wellcome is a global charitable foundation, both politically and financially independent. They support scientists and researchers, take on big problems, fuel imaginations, and spark debate.

In 2015 they provided Gallomanor with £30,000 of funds to develop and run 4 zones of I'm a Scientist in Vietnam as part of their International Public Engagement programme.

What happened?

Pilot

Timeline

- **January – February 2016** — Formative research and recruitment with teachers
- **March – April 2016** — Prepare website and recruit scientists for Pilot
- **May 2016** — Pilot event with schools, 1 zone on Infectious Diseases theme, *Chủ đề Các bệnh truyền nhiễm*.
- **June – July 2016** — Evaluation

Schools

Secondary schools were invited to take part according to the following criteria:

- An interest in connecting school students and scientists.
- An IT lab with good internet access.
- Support for their IT and science teachers in delivering the project to their students.
- They would allow filming of their classes for production of a video about the project.

Three schools from Ho Chi Minh City took part in the themed Infectious Diseases Zone. 191 students logged into the zone, with 95% actively participating by asking a question, taking part in a live chat, or casting a vote. 246 questions were asked. 159 votes were cast.

- Bạch Đằng Secondary School
- Nguyễn Du Secondary School
- Tân Tạo A Secondary School

Scientists

5 scientists took part in the Infectious Diseases Zone:

- **Phan Nhã Uyên** — Oxford University Clinical Research Unit, Ho Chi Minh City
- **Lâm Tuấn Thanh** — Oxford University Clinical Research Unit, Hospital for Tropical Diseases, Ho Chi Minh City
- **Nguyễn Minh Nguyệt** — Oxford University Clinical Research Unit, Ho Chi Minh City
- **Nguyễn Lê Việt Hùng** — University of Medicine and Pharmacy, Ho Chi Minh City
- **Chung Thế Hào** — Oxford University Clinical Research Unit, Ho Chi Minh City



Activity and zone report

In the first event, 191 students registered, 95% of whom were active (asked a question, joined in a live chat, posted a comment, or cast a vote). 246 questions were asked by the students, and 159 answers given by the scientists. There were 4,997 lines of live chat.

During the two weeks of the event the majority of questions asked by students related to the theme of infectious diseases, such as on enteric diseases, zoonosis and dengue fever. However, the students also showed their interest in other topics outside of this theme such as physics and the history of medicine.

The Phase I Evaluation Report contains details of everything that happened in the pilot event.

Phase I Evaluation Report
chatvoinhakhoahoc.vn/wp-content/uploads/2017/10/IAS-VN-Phase-I-Evaluation-Report.pdf

Roll out

Timeline

- **May 2016** — Complete Pilot event.
- **September 2016** — Phase I Evaluation Report.
- **January 2017** — One zone run on Biomedical theme, *Lĩnh vực Y Sinh*, with schools from Ho Chi Minh City and Hanoi.
- **May 2017** — Two zones run on Health, *Chủ đề Khoa học sức khỏe*, and Life Sciences, *Chủ đề Khoa học sự sống*, themes, with schools from Ho Chi Minh City, Hanoi, and Tra Vinh Province.

Schools

School recruitment was carried out with the support from Khan Quang Do Magazine, who were in charge of inviting schools and connecting us to their long-term developed network of secondary schools in HCMC and neighbouring provinces.

School visits took place before the events to introduce the project by showing the films from the pilot event.

A new version of the teacher packs were delivered to schools a few weeks before the event, so that the teachers could instruct the students to log in.

18 schools were invited to take part; a total of 17 schools participated across the 3 zones in January and May.

January 2017

Biomedical Zone, Lĩnh vực Y Sinh

- **Hanoi**
 - Cau Giay Secondary School
 - Lomonosov Secondary School
- **HCMC**
 - Tran Van On Secondary School
 - Le Quy Don Secondary School
 - Bach Dang Secondary School
 - Tan Tao A Secondary School
 - Nguyen Du Secondary School
 - Nguyen Gia Thieu Secondary School
 - Hoang Hoa Tham Secondary School

May 2017

Health Zone, Chủ đề Khoa học sức khỏe

- **Hanoi**
 - Cau Giay Secondary School — Did not participate
- **HCMC**
 - Tran Van On Secondary School
 - Tan Tao A Secondary School
 - Nguyen Gia Thieu Secondary School
 - Tra Vinh Province
 - Ly Tu Trong Secondary School

Life Science Zone, Chủ đề Khoa học sự sống

- **Hanoi**
 - Ba Dinh Secondary School
- **HCMC**
 - Le Quy Don Secondary School
 - Bach Dang Secondary School
 - Hoang Hoa Tham Secondary School

Scientists

15 scientists took part across the 3 zones. Vietnamese scientists working in related areas were invited to participate in the project. Nearly three quarters of the scientists were living in Vietnam, and around a working at OUCRU.

January 2017

Biomedical Zone, Lĩnh vực Y Sinh

- **Trần Thị Thanh Thỏa** — Duy Tan University, Da Nang City
- **Đỗ Thị Thúy Nga** — Oxford University Clinical Research Unit, Hanoi
- **Nguyễn Minh Hoàng** — Institute of Biotechnology, Vietnam Academy of Science and Technology, Hanoi
- **Nguyễn Thị Hiệp** — International University, Vietnam National University, Ho Chi Minh City
- **Nguyễn Văn Cường** — Oxford University Clinical Research Unit, Ho Chi Minh City



May 2017

Health Zone, Chủ đề Khoa học sức khỏe

- **Dương Văn Anh** — Oxford University Clinical Research Unit, Ho Chi Minh City
- **Nguyễn Tổ Anh** — Oxford University Clinical Research Unit, Ho Chi Minh City
- **Nguyễn Thị Thu Hoài** — Faculty of Biotechnology, International University, VNU Ho Chi Minh City
- **Nguyễn Lâm Vương** — University of Medicine and Pharmacy, Ho Chi Minh City
- **Phí Thị Kim Chung** — Duy Tan University, Da Nang City



Life Science Zone, Chủ đề Khoa học sự sống

- **Nguyễn Tấn Trung** — Institut Jean-Pierre Bourgin, INRA, Versailles, France
- **Lê Thanh Quang** — Department of Environmental Ecology, Forest Science Institute of Southern Vietnam, Ho Chi Minh City
- **Lê Ngọc Liễu** — University of Science and Technology of King Abdullah, Saudi Arabia
- **Trần Thị Mỹ Hạnh** — Department of Biotechnology, International University, Ho Chi Minh City
- **Triệu Anh Trung** — School of Biological Sciences, University of East Anglia, United Kingdom



Activity and zone reports

Across the 3 zones in January and May 2017, 575 students logged in, 88% of whom were active on the site (asked a question, joined a live chat, posted a comment, or cast a vote). The students asked 354 questions, and 280 answers were given. There were 8,328 lines of live chat.

The zone reports have details of everything that happened in the zones.

Phase II Zone Reports

Biomedical Zone, Lĩnh vực Y Sinh

Report: chatvoinhakhoahoc.vn/wp-content/uploads/2017/10/Linh-vuc-Y-Sinh-Zone-Report-January-2017.pdf

Health Zone, Chủ đề Khoa học sức khỏe

Report: chatvoinhakhoahoc.vn/wp-content/uploads/2017/10/Khoa-hoc-suc-khoe-Zone-Report-May-2017.pdf

Life Science Zone, Chủ đề Khoa học sự sống

Report: chatvoinhakhoahoc.vn/wp-content/uploads/2017/11/Khoa-hoc-su-song-Zone-Report-May-2017.pdf

Challenges

Language

Creating the site in Vietnamese presented some problems but perhaps fewer than expected. WordPress (the system we use) has a VN version. OUCRU employed an able translator. Three issues remained. We needed to choose a new font for the site in order to display the full range of VN characters. Our chat engine did not perform sufficiently well. Had we to run more than one concurrent live chat it could have crashed our server. We needed to develop a new chat engine. And finally the translation of the profanity black list caused plenty of amusement.

Collaborative working

The 7 hour time difference did not cause any problems. Our Basecamp collaboration site combined with a generous schedule made collaboration smooth. It also helped that our OUCRU partners seemed to answer messages quite late into the night.

Government procedures

OUCRU have an excellent established relationship with TST. Government permission issues were not visible to Gallomanor.

Local management

Training a local team at OUCRU was helped by a pre-event visit to the I'm a Scientist HQ in Bath by Thanh Vu Duy who led the project locally. A 10 day visit to HCMC by Shane McCracken the Project Director helped embed the project routines with OUCRU. Finally support provided through Basecamp with tested schedules and operating procedures help the local implementation of IAS.

Permissions

Permissions were not a great challenge to running the project in Vietnam.

OUCRU worked with the Center of Science and Technology Development for Youth (TST) and Khan Quang Do Magazine: government associations in the youth sector, both with long-standing, extensive relationships with local schools at different levels.

Collaboration with these partners does not only help OUCRU reduce paperwork, but also facilitates the selection of schools for the events.

Technical

Schools in HCMC were expected to be well connected. Connectivity issues were not expected and didn't occur.

Connectivity may become a problem as more remote schools are recruited.

Scientist evictions

In the standard I'm a Scientist format, evictions take place during the second week of the event, with the scientist with the fewest votes being evicted from the competition each day, until only the winner remains on the final day.

During the formative research, all of the participating scientists asked that evictions not be a part of the project as they wanted to have as much time with the school students as possible, and the competition element was seen as less important.

This presented only a slight challenge in terms of a re-thinking how votes would work, and how the winner would be announced. It may though have had a small effect on the gender balance of the winning scientists, where evictions work as a possible buffer for gender biased voting.

School's recruitment

The Center of Science and Technology Development for Youth recruited schools for the pilot event. Only three schools were recruited. A new partner, Khan Quang Do Magazine, was found for Phase II when schools in HCMC and Hanoi were recruited.

OUCRU are planning on running the event and involving schools from the rural Mekong delta area.

Scientist recruitment

Vietnamese scientists working in related areas were invited to participate in the 2017 events.

While 10 of the 15 scientists who took part in 2017 were female, all 3 of the winners were male. In the Biomedical Zone, approximately 53% of the chat sessions had at least 3 scientists take part, while in the Life Science and Health Zones every chat (100%) had either 4 or 5 scientists participate.

		Biomedical Zone <i>Lĩnh vực Y Sinh</i>	Health Zone <i>Chủ đề Khoa học sức khỏe</i>	Life Science Zone <i>Chủ đề Khoa học sự sống</i>
Gender	Female	4	4	2
	Male	1	1	3
Workplace	OUCRU	2	2	0
	Others	3	3	5
Living	In Vietnam	4	5	2
	Abroad	1	0	3
Number of live chats with 3 or more scientists		9/17	10/10	10/10

ABOVE: BREAK DOWN OF SCIENTISTS TAKING PART IN THE PHASE II EVENTS

All of the scientists in the Biomedical Zone were interested in interacting with school students through the web-based platform. However, some could not follow the chat schedule, and missed several sessions due to unexpected work; this had the effect of overloading the other scientists with questions from students. In the Health and Life Science Zones however, all 10 scientists were more active in live chats despite some of them living in different time zones.

Gender imbalance in winning scientists

Across the 4 zones, in the pilot and the roll out, all 4 of the winning scientists were male. This, despite 12 of the 20 participating scientists being female; and indeed in 2 zones, 4 of 5 scientists being female.

Removing the eviction element of the competition likely caused the votes to be more evenly spread among the scientists; where evictions take place, votes become more focussed on fewer candidates. With this in mind, if there were students voting along gender lines, those wanting to vote for a female scientist had more options than those voting for a male scientist.

Of course, the level of engagement of each scientist will play a role. Indeed, we see that vote share generally appears to correspond to level of engagement, particularly in live chats.

According to the evaluation activity carried out at end of the 2017 events, 123 out of 148

school students said that they voted for the scientists, who joined chats friendly and gave clear answers on the website. They also mentioned the characteristics of scientists they liked with adjectives including “humorous”, “friendly”, “sociable”, “convincing”, “creative”, “intelligent”, “incredible”, and “cool”.

In addition, the winners tended to actively take part in most of the live chats and have the highest or second highest numbers of profile views. When talking with students after chat sessions, many said that they would certainly vote for the winners of Health and Life Science zones because of their senses of humour and informative answers.

In the Biomedical Zone, students were highly interested in the winner’s profile page as it was the first to include video clips showing the scientist work.

Impact

Data collection methodology

Web metrics

Data were collected through web analytics including numbers of page hits, and when and from where the site was accessed.

The *I'm a Scientist* site also collects data on numbers of questions asked and answered, lines of live chats, and votes. We are able to identify which users are posting questions, and use this to determine activity levels for each school or scientist.

Key activity data is included in previous sections, and in the zone reports.

Phase I Evaluation Report

chatvoinhakhoahoc.vn/wp-content/uploads/2017/10/IAS-VN-Phase-I-Evaluation-Report.pdf

Phase II Zone Reports

Biomedical Zone, Lĩnh vực Y Sinh Report: chatvoinhakhoahoc.vn/wp-content/uploads/2017/10/Linh-vuc-Y-Sinh-Zone-Report-January-2017.pdf

Health Zone, Chủ đề Khoa học sức khỏe Report: chatvoinhakhoahoc.vn/wp-content/uploads/2017/10/Khoa-hoc-suc-khoe-Zone-Report-May-2017.pdf

Life Science Zone, Chủ đề Khoa học sự sống Report: chatvoinhakhoahoc.vn/wp-content/uploads/2017/11/Khoa-hoc-su-song-Zone-Report-May-2017.pdf

Focus groups and interviews

Feedback forms for scientists and teachers were used in January and May 2017, with face-to-face interviews and surveys for students taking place during the May event.

Students

School students have good access to social networks, particularly Facebook, in Vietnam. Some therefore, found it easy to share opinions about the project on the OUCRU Facebook page.

About the Biomedical Zone, one student commented:

“Today chat session was great. My friends gathered at my computer to chat with the scientists. At the beginning, there was only me who can sign in, therefore I represented my friends to put questions to the scientists. I hope I will be able to join in this interesting and useful event once again, so that I can learn and get more knowledge for myself.”

In the Health and Life Science zones, OUCRU was supported by recruited moderators to approve questions, set keywords, and facilitate chat sessions. The assistance gave more time to interview and record feedbacks from students thoroughly.

The survey conducted for 148 students in 9 schools showed that about 70.3% of the participants were interested in science before joining the project, and the number rose to around 81.8% after taking part. The majority of students agreed that they gained more knowledge and felt closer to scientists after participating in *I’m a Scientist Vietnam*.

Students learned new knowledge after joining Chat voi Nha khoa hoc. (132/148)	89.2%
Students agreed scientists’ answers in the ASK section were clear and satisfying to them. (124/148)	83.8%
Students agreed they felt closer to the scientists, and the research works were more interesting than they thought. (130/148)	87.8%
Students agreed the scientists they voted for was the one with clear answers and friendly chat. (123/148)	83.1%

ABOVE: STUDENT SURVEY RESULTS



ABOVE: STUDENTS TAKE PART IN I'M A SCIENTIST VIETNAM — SCREENCAP FROM IAS VN FILM

Comments from students were recorded in the films made of the pilot event:

“Before joining this project, I thought that scientists are very weird people. However, after the project I found that they are actually very friendly and humorous people.”

— STUDENT, IAS VN FILM, INTRODUCTION TO I'M A SCIENTIST VIETNAM

“I had a chance to ask many questions about the lives of the scientists and a lot of useful scientific information.”

— STUDENT, IAS VN FILM, INTRODUCTION FOR TEACHERS

“[The live chat] is my favourite activity because I can ask questions directly to the scientists. They are very open-minded and welcoming in answering my questions as friends do.”

— STUDENT, IAS VN FILM, INTRODUCTION FOR TEACHERS

“I thought that scientists are people who just work in laboratory. After participating in this project, I find that scientists are close to us and are simply just like us.”

— STUDENT, IAS VN FILM, INTRODUCTION FOR TEACHERS

“Before joining this project, I thought that science is very inaccessible. I don't usually talk about science. But after the project I feel that I want to know more.”

— STUDENT, IAS VN FILM, INTRODUCTION FOR SCIENTISTS

“I think it is very useful and it helps me gain a lot of knowledge.”

— STUDENT, IAS VN FILM, INTRODUCTION FOR SCIENTISTS

“Science is something very interesting and exciting.”

— STUDENT, IAS VN FILM, INTRODUCTION FOR SCIENTISTS

Watch the films at:

Introduction to I'm a Scientist Vietnam:
youtube.com/watch?v=n--SJOtFm1w

Introduction for scientists:
youtube.com/watch?v=HKMwJZ8iOqU

Introduction for teachers:
youtube.com/watch?v=WMhjcng-8y8



ABOVE: STUDENTS TAKE PART IN I'M A SCIENTIST VIETNAM — SCREENCAP FROM IAS VN FILM

Teachers

Teachers were interviewed following the events; some feedback is included below.

“Initially, when the students received the notification about the event, only some of them felt excited, especially those who are interested in biology. However, when they already started to chat, almost all of them became involved in the conversation enthusiastically right after the first question.”

— NGUYEN THI THUONG NGA, TEACHER AT HOANG HOA THAM SECONDARY SCHOOL, HCMC

“The students were very excited to participate because the scientists were very friendly and close; they explained professional issues in a very understandable way, so it was easy for the students to get the idea. Besides, the scientists were also very enthusiastic to answer questions not covered by their field of study, making the students feel comfortable to join the event.”

— NGUYEN MINH THUY, TEACHER AT BACH DANG SECONDARY SCHOOL, HCMC

“After the first chat session, 100% of students were looking forward for the next conversation. When being asked, my students were interested in the way scientists answer their questions, as well as the friendly and enjoyable atmosphere the chat sessions brought.”

— CAO NGOC TU, TEACHER AT LOMONOSOV SECONDARY SCHOOL, HANOI

Scientists

Some feedback from scientists is included below.

“I knew more about school students’ concern after participating in this event. I myself learned that I usually go deep into details due to the nature of my job, which reduces students’ overall cognitive abilities. I am pleased to continue participating in the school engagement projects organized by OUCRU. The event is vibrant and exciting with half crying and half laughing situations. A memorable experience!”

— NGUYEN MINH HUONG, PHD, INSTITUTE OF BIOTECHNOLOGY (IBT), VIETNAM ACADEMY OF SCIENCE AND TECHNOLOGY (VAST)

“I’m excited to be a part of [I’m a Scientist Vietnam]. The chatting time with school students was very relaxing. I understand somewhat of their health concerns. At the same time, I also update some knowledge while searching for the the answers to their questions.”

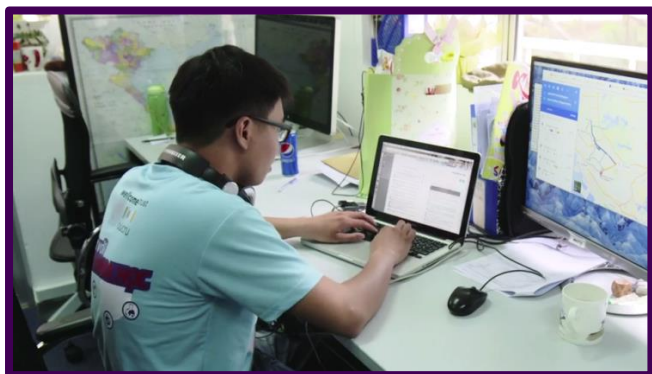
— NGUYEN LAM VUONG, UNIVERSITY OF MEDICINE AND PHARMACY, HCMC

“This is a meaningful event for school students. Exchanging scientific information with students is very different from discussing with colleagues. I have participated in several activities to engage with school students, and I am still willing to participate more if I can arrange time.”

— NGUYEN VAN CUONG, PHD STUDENT, ZOONOSES GROUP, OUCRU HCMC

“This useful event brings the students closer to science. Personally, I am happy to talk with school students because they are very lovely and curious. Many of them put very difficult questions, which made the scientists embarrassed sometimes before giving the answers. I also had to do searching on the internet to answer their questions when they asked something I didn’t know or forgot. Therefore, the chat sessions help me accumulate or revise knowledge for myself.”

— DR. DO THI THUY NGA, OUCRU HANOI



ABOVE: SCIENTIST, CHUNG THỂ HẢO TAKES PART IN I'M A SCIENTIST VIETNAM — SCREENCAP FROM IAS VN FILM

"I found that many issues they raised were very interesting, adults can to learn from their thinking, which helps increase the creativity in scientific research and teaching. Chatting with school students is also a channel for scientists to interact with public and spread the values they have collected."

— TRIEU ANH TRUNG - SCHOOL OF BIOLOGICAL SCIENCES, UNIVERSITY OF EAST ANGLIA, UK

Prize winner projects

The winning scientists were given 10,000,000 Vietnam Dong to organize engagement activities for school students.

As of October 2017, three of the zone winners have sent plans for using their prize money.

Chung The Hao

May 2016 Infectious Diseases Zone Winner

Chung The Hao, PhD student at OUCRU, winner of the Infectious Diseases Zone plans to give a lecture about microorganisms for 15 secondary school students. After that, they will participate in experimental activities to observe and verify the presence of microorganisms in daily life.

Nguyen Van Cuong

January 2017 Biomedical Zone Winner

Nguyen Van Cuong, winner of Biomedical Zone funded a science comic strip competition for secondary school students. Students submitted entries on the topic of zoonotic disease for the scientists to evaluate. Ten entries were chosen, and students met OUCRU scientists in the Zoonosis Group, as well as comic artists to discuss their ideas. The students then has one week to complete their comics. The winning entries are published in Khan Quang Do Magazine.

Photos of this activity were updated on the Facebook pages: goo.gl/xQojRu, and goo.gl/KF8uaE

Nguyen Lam Vuong

May 2017 Health Zone Winner

Nguyen Lam Vuong, winner of the Health Zone, organised an event about Vietnamese traditional medicine for 20 secondary school students in Ho Chi Minh.

Photos of this activity were updated on the Facebook page: goo.gl/h739fq

Thanh Nien Newspaper also published a video about the event: goo.gl/gY8pk4

“The event took place in a whole weekend morning and was very interesting. In the first part, the students learned some acupuncture points in the human body, the traditional herbs and picked up some by themselves to make a healthy drink at home. They also built a simple model of tree planting and fish farming. Beside the knowledge, the students also improved their team work ability through games after each task. I had the opportunity to talk with them and gave them the small prizes for their effort to finish all the tasks.

The second part happened in a traditional medicine museum. Everybody was introduced about the history of Vietnamese traditional medicine. We could see by our eyes the instruments and the ways of making medicine long time ago. The museum was beautiful and I thought the students were very excited and encouraged in terms of scientific research, especially in traditional medicine. I am grateful for this wonderful experience. I hope the students will continue to learn and do science.”

— NGUYEN LAM VUONG

Press coverage

“For the love of science, ask a question!”, article in VN Express:

vnexpress.net/projects/for-the-love-of-science-3593997/

Video published by *Thanh Nien Newspaper* about Nguyen Lam Vuong’s prize winner project: goo.gl/gY8pk4

Project team interviews

In October 2017, interviews were conducted via email with the project teams at Gallomanor (GM) and OUCRU Vietnam. General feedback from the project teams is summarised on the following pages. More detailed responses are included in Appendix I.

Project overview

Both project teams are positive, enthusiastic about the project, and excited to see it continue and expand further.

“A collaboration between Gallomanor and OUCRU to launch I’m a Scientist in Vietnam. It involved testing the concept and format in a new language and culture and seeing if it worked. It did. Students asked questions. Scientists answered them. The focus was very much on the science as opposed to scientist when compared to other countries but both students and scientists seemed to benefit from the activity.”

— GM

“... students can learn more about science and research work as well as have a perception of how normal a scientist could be. In addition, the event is also a great environment for scientists to talk about their science with young audience and to learn about what the students think about science and what they want to know.”

— OUCRU

What pleased you most about the project?

Key points:

- The enthusiasm for the project, and organisation of the OUCRU team.
- Enthusiasm exhibited by the students and scientists taking part.

“The fact that school students, especially those in remoted areas, enjoy the chats is what makes me feel pleased the most. ... Many of them told us that this was the first time they were able to talk with real scientists.”

— OUCRU

“...The students’ enthusiasm was plain to see and hear during school visits. The project excited them and their enthusiasm clearly delighted the teachers no matter how hard they tried not to smile.”

— GM

- Promoting access to science.

“...science has been seen as something “academic and hard to reach” by a majority of Vietnamese school children. ... I’m a Scientist provided a very effective intervention to narrow the gap between science and schools, between children and scientists.”

— OUCRU

- Extending connections with students through the prize winners’ projects.

What areas could be improved?

Key areas:

- Finding ways to reach more students and schools in rural and remote areas.
- Preparation time; encouraging teachers to spend more time preparing students and introducing them to the project before taking part. One member of the OUCRU team also raised the point that more could be done to work with science teachers and not just IT teachers.

“The project should work more with the teachers to carry the introduction sessions for students before their 1st chat session in order to help them understand about the project as well as how the 3 functions: ASK, CHAT and VOTE of the event work.”

— OUCRU

- The eviction element of the competition — common to all other versions of I’m a Scientist — was removed from the Vietnam project. There was mixed opinion on whether this was a positive change; some thought it improved the engagement rate of the scientists involved, and made the event more inclusive, while others would have liked to trial evictions, and

worried that lack of evictions could have led to gender bias in voting behaviour.

There was also the suggestion that more data and evaluation on voting behaviour could be useful.

- Technical issues and internet connectivity of the schools. Suggestions for improvement included backup connectivity devices, and encouraging teachers to test the connections before the chats were due to begin.
- Further development of teacher resources.

Working relationship and advice for future projects

Both teams were positive about the working relationships with one-another; feeling they have been supported by one-another throughout the running of the project. The Vietnam team feel they have gained confidence and expertise in running the project, are excited to continue, and are looking to expand into Nepal and Indonesia. Gallomanor will continue to provide technical support, and additional support where needed.

“It has been excellent from our point of view. Thanh, Nam and Thao have been mostly very responsive when needed and always highly organised. There have been times I suspect when Gallomanor have let schedules and issues slip. Mostly though I think it has been mutually respectful with both sides recognising each others’ expertise and strengths. In short it has been a real delight.”

— GM

In terms of advice for other groups looking to set up similar projects:

“From our experience, it is very important to have conversations with our audience and local stakeholders to get their feedbacks and ideas before we run the project.”

— OUCRU

“You know your education systems. You have access to scientists. We can provide the technology, know how and systems to help you connect students with scientists on your country in an effective and enjoyable way.”

— GM

Next Steps

Since the end of the Wellcome International Engagement Award to Gallomanor the OUCRU team have been planning further zones involving more schools and more scientists. This is a strong indication of the success of the project and the value placed upon it in Vietnam.

“After two years of implementing IAS in Vietnam, we think the project has improved science engagement in schools to certain extents and helped OUCRU establish a good relationship with local secondary schools. At the same time, the capacity building and support from Gallomanor have helped us to run the project more independently. Regarding the collaboration with local partners to recruit schools, we have had a better recognition of responsibilities of each side and how we should adjust the involvement of all parties.

We are planning for the upcoming events next year, in which OUCRU’s School Engagement team in Ho Chi Minh City will mainly run the project in terms of moderation and technical issues, and the team in Hanoi will support in recruiting and visiting schools. In the future, we would like to explore possibilities of setting up I’m a Scientist projects, and sharing our learning with other OUCRU research sites in Jakarta and Nepal.”

— HIEU THAO, OUCRU VIETNAM

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Appendix I:

Project team interviews

In October 2017, interviews were conducted via email with the project teams at Gallomanor (GM) and OUCRU Vietnam. Feedback from Shane McCracken (GM), Emily Paget (GM), Thanh Vu Duy (OURCU), Hieu Thao (OUCRU), and Nam Nguyen (OUCRU) is summarised on the following pages.

Describe the project in your own words

“A collaboration between Gallomanor and OUCRU to launch I’m a Scientist in Vietnam. It involved testing the concept and format in a new language and culture and seeing if it worked. It did. Students asked questions. Scientists answered them. The focus was very much on the science as opposed to scientist when compared to other countries but both students and scientists seemed to benefit from the activity. The project is now self-sustaining in Vietnam with the local team in a good position to carry with minimal support from Gallomanor in the UK.”

GM

“In Vietnam, the development of STEM education has just emerged in recent years and brought about a wide range of science activities and talks. Among them, I’m a Scientist Vietnam is one of a kind, a brand new public engagement format for secondary school students and scientists in Vietnam. The project does not only provide school students with scientific knowledge but also offer a chance to interact with real Vietnamese scientists. Meanwhile, local scientists have opportunities to make direct conversation with young audience, which they only do once in a blue moon or less. Due to its authenticity, I’m a Scientist Vietnam excites participants from the beginning, which has been reflected through the feedback after each event.”

OUCRU

“I’m a Scientist Vietnam is an online platform which transforms interactions between Vietnamese school children and scientists through an interactive website into fun and engaging learning experiences for a better science education.”

OUCRU

“...Through the CHAT and ASK activities, students can learn more about science and research work as well as have a perception of how normal a scientist could be. In addition, the event is also a great environment for scientists to talk about their science with young audience and to learn about what the students think about science and what they want to know.”

OUCRU

What pleased you most about the project?

There were several common themes among the teams, including enthusiasm for the project — both from the project teams and the participants — as well as how the project has worked to promote access to science and to improve science education.

Enthusiasm and organisation of the OUCRU team

“The organisation and enthusiasm of the OUCRU team in making the project happen. There seemed to be a desire to learn and absorb the knowledge of the UK team. It was a very easy team with which to work.”

GM

“The project has been well organised by Vietnam team ... The events run well and the OUCRU team have been proactive at fixing problems when they couldn't get in touch with us due to the time zone.”

GM

“The continuation of the project. The aim was always for the project to continue past the involvement of Gallomanor. It validates our original proposal and makes it all so worthwhile”

GM

Enthusiasm from students and scientists

“...The students’ enthusiasm was plain to see and hear during school visits. The project excited them and their enthusiasm clearly delighted the teachers no matter how hard they tried not to smile. The OUCRU scientists also seemed to enjoy and be surprised by how much they enjoyed the engagement. I hope this leads to more and more public engagement from them.”

GM

“[Students] showed their great curiosity and enthusiasm during the event and I believe that they become more confident to ask and talk about science after 2 weeks of the event.”

OUCRU

“ The fact that school students, especially those in remoted areas, enjoy the chats is what makes me feel pleased the most. In May 2017, the furthest location was in Tra Vinh, a province in the Mekong Delta of Vietnam that took us around 3 hours of traveling. We had chance to talk with the students before and after a chat session.

Many of them told us that this was the first time they were able to talk with real scientists. They raised serious questions about science and silly ones about scientists’ life, which brought us a lot of laugh. Although the school is located in the city of Tra Vinh, students still do not have access to science activities or talk about scientific topics. Visiting schools to support students during chat sessions has been my most favourite part in each event so far.”

OUCRU

“[The scientists] were highly committed to their chat schedule and to spending their time answering the questions from students. It was great that there was no eviction element to the event, differing from the UK format, all scientists remained in the competition until the final Friday.”

OUCRU

Promoting access to science

“A good model to promote access of Vietnamese school children to science. While science has been seen as something “academic and hard to reach” by a majority of Vietnamese school children. And, there are also limited engaging- resources for schools to teach the children about science in a participatory manner. Therefore, I’m a Scientist provided a very effective intervention to narrow the gap between science and schools, between children and scientists.”

OUCRU

“Scientists can join from distance which is great. The platform does not require scientists to present at the events they can take part in activities with the children from their workplace, from home even while they are traveling...”

OUCRU

“A good partner on science education offering for Vietnamese children. I’m very pleased about I’m a Scientist as it offered more than a project, it created a good partner working together to develop further opportunities to enhance science education for Vietnamese school children.”

OUCRU

Extending connections to students with prize money

“[The prize money] is a good idea to extend the connection between the students and the scientists using the prize of the event they both took part in. Whether the scientist directly gets involve in or sponsors others to do the activity, the students are the main beneficiaries. In both events about Vietnamese traditional medicine and the science comic strip competition, students had positive responses. Almost all of them agreed that these events should be organized as regular activities.”

OUCRU

What could have gone better?

More schools from remote and rural areas

A common theme from both Gallomanor and OUCRU was that it would have been good to reach more schools from rural and remote areas.

“I would have preferred to have had more schools and more remote schools involved earlier on. It would have been a good test of the project.”

GM

“A wider range of scientists and schools to take part.”

GM

“Reach school children in rural areas which have no IT facilities. IAS now just works for those schools equipped good facilities for IT. How about those children who study in remote areas?”

OUCRU

Preparation time

Additional preparation time for the teachers and students taking part was a common request among the OUCRU team:

“The introduction about I’m a Scientist and scientists for students before the zones run should have been done earlier so that students could spend more time getting to know the scientists. ... From my observation, the schools that joined the project for the first time tended to be more active and pay more attention on this introduction part than the older ones. Possibly, the fresh collaboration and excitement can explain for this.”

OUCRU

“The project should work more with the teachers to carry the introduction sessions for students before their 1st chat session in order to help them understand about the project as well as how the 3 functions: ASK, CHAT and VOTE of the event work.”

OUCRU

“Instead of working with only IT teacher, it’s better to get science teachers involved in the event. I think science teachers would be more active because IAS event is something related to their major and it could benefit them for their science teaching.”

OUCRU

One member of the Gallomanor team also suggested that more time could have been spent preparing for the events.

“Would have liked more time to prepare for event, especially when it started over the UK Christmas period.”

GM

Evictions and voting

There was disagreement in the effects of removing the evictions element from the competition.

“I would have liked to have tried evictions in one zone at least. It could have added some additional excitement without reducing the engagement time ... [Lack of evictions] made the winner announcement difficult. Possibly led to gender inequality as gender biased voting wasn't evened out.”

GM

Others, however, felt that the lack of evictions improved the format, and possibly lead to more engagement from the scientists.

“It was great that there was no eviction element to the event, differing from the UK format, all scientists remained in the competition until the final Friday.”

OUCRU

“[The effect of not having evictions was] overall positive. It lets all the scientists feel like they're part of the entire event; they're more likely to continue answering questions and taking part in live chats than if they have been evicted.”

GM

Furthermore, one member of the OUCRU team felt that additional voting data would be useful going forward.

“In the Life Sciences zone, the winning scientist ... was not the most active on CHAT and ASK as other scientist based on Google analysis. So I wonder are we able to produce data demonstrating for daily voting activity of the children for every single scientist: which accounts vote for which scientists, how many votes each scientist get per day, how the votes changed throughout the 2 weeks? At the current format, it seems we just see actual numbers of vote given for each scientist. And I think its good to have voting activity in the report or at least inform the scientists as part of event results of the event.”

OUCRU

Technical issues and internet connectivity

Technical, and internet connectivity difficulties were a common concern among the OUCRU team.

“There were a few schools that could not follow the chat schedules due to technical problems such as the poor internet connection or the quality of the school computers. It was a waste of time for scientists, teachers, students, and moderators to join the chat room without doing anything. I personally think the situation could be avoided if we can make an agreement with the teachers that the computers should be opened around 5-10 minutes before the students come to the IT rooms for double-checking. In case a school cannot make it to a chat session, we still have time to inform the scientists. I wonder if we should have a few extra chats for those schools that miss the chats due to power outage and that sort of thing.”

OUCRU

“Backup devices for internet connectivity. Due to the internet service being used in schools joining the I’m a Scientist events which are under control and management of the project team. And we could do nothing when their internet goes down like it happened the Biomedical zone in January 2017. It was better if we had kind of wifi backup device to make sure the event runs smoothly in our best preparation.”

OUCRU

Development of teacher resources

Going forward, the OUCRU team would like to further develop the teacher, including changing language to be more familiar to Vietnamese teachers, and the possible change of printed cards.

“The teacher packs should be redeveloped with more activities and the tone of the language used in the packs may also be revised to be more informal and familiar to Vietnamese teachers.”

OUCRU

“Since there is a large number of username cards for students left after the last three events, I think using the printing cards may not be very necessary. The student username cards should be sent to teachers’ emails along with other documents like the teacher packages and the chat schedules.”

OUCRU

Describe the working relationship between OUCRU and Gallomanor

“It has been excellent from our point of view. Thanh, Nam and Thao have been mostly very responsive when needed and always highly organised. There have been times I suspect when Gallomanor have let schedules and issues slip. Mostly though I think it has been mutually respectful with both sides recognising each others’ expertise and strengths.

In short it has been a real delight.”

GM

“The team of Gallomanor was very supportive during the time of preparing and running the pilot event in Vietnam. Even though the 2 teams worked mostly via email and on Basecamp [project management software], everything went smoothly and so well. Besides that, the Gallomanor team also welcomed different ideas and changes that were suggested by the OUCRU team to help the I’m a Scientist event become more applicable to Vietnamese schools.”

OUCRU

How well prepared do you feel the OUCRU team are in terms of ability to run the project in the future?

The OUCRU team have the full support of Gallomanor in continuing to run the project. The OUCRU team themselves have gained confidence and expertise in running the project, and are now considering expansion to Nepal and Indonesia.

“I have full confidence that OUCRU can run the event with minimal support from the UK. My main advice would be to remember they can call upon us and should do so earlier rather than later.

We also need to remember to brief OUCRU fully on changes to the UK site that will be rolled out internationally.”

GM

“Generally, the team have already run their own project, for the most part alone, where we just monitor site usage. As long as we can contact each other, should any major site problems occur, I don't think they require us in any real project management role.

Vietnam were a great team and feel the communication has been great as well as the projects.”

GM

“The OUCRU schools team now is capable to roll out the I'm a Scientist across the country independently. However, we do appreciate to continue collaborating with Gallomanor on those technical improving affairs to make the I'm a scientist better for Vietnamese children as well as to take this engagement idea to other OUCRU-based research sites in Nepal and Indonesia.”

OUCRU

“I think the I'm a Scientist team in Vietnam has been developing our confidence over time. At the moment, we have built a strong relationship with our local partner Khan Quang Do, who is capable of recruiting schools and securing the permissions. We are also becoming more independent in running the website and organizing the events. However, we still need some more time to practice on collecting the data for reports and improve our website management skills.”

OUCRU

“After the pilot event the Schools team at OUCRU conducted evaluation session to reflect and learn from the first event and we felt that we were confident to continue to run next events even for more students and with more than one zone in an event. We came up with suggestions and solutions about school and scientists recruitment, teacher packs, as well as about the moderation, which would bring improvements for the next events. However, we still need the support from Gallomanor team to improve the Vietnamese website.”

OUCRU

What advice would you give for other groups interested in launching similar projects?

“Get in touch. In good time.

You know your education systems. You have access to scientists. We can provide the technology, know how and systems to help you connect students with scientists on your country in an effective and enjoyable way.”

GM

“Being pro-active in getting the site ready (having descriptions, logos and scientists live on the site) for when teachers and students log in. It's also important that they ask for help if we've not been clear or it doesn't make sense.”

GM

“The most important thing I learned since I started working on I'm a Scientist Vietnam is being patient and enthusiastic about the project. I spent time learning from my colleagues at OUCRU, asking Gallomanor team a lot of questions, and figuring things out while running the events. At this stage, I'm proud that we have made it this far to help develop the engagement with science for around 800 school students in Vietnam.”

OUCRU

“From our experience, it is very important to have conversations with our audience and local stakeholders to get their feedbacks and ideas before we run the project.”

OUCRU