

Youth Symposium 2018

Friday, 20 July, 2018







Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

Foreword

For a young person, the time spent at university as a student is one of the most formative in their lives. Education and research are the two classic pillars of student life. But it's the extracurricular activities and the social and civic engagement that provide formative experiences that shape the character, attitudes and personality of students. It is mostly during the time spent in between classes that students acquire and develop the essential skills for their future careers and lives — skills such as creativity, emotional intelligence, independence, resilience, self awareness; these are now often referred to as "the 21st century skills".

Universities develop and offer initiatives, resources and platforms to develop such skills, but it is only through the active collaboration between university and students that these resources become meaningful and relevant. It is important to design these resources together with young people so that the resources are responsive to their needs and expectations and remain contemporary and updated in a society that is changing and evolving at unprecedented speed.

The Youth Symposium organised by Science Gallery in July 2018 brought together an extraordinary group of young people from Trinity College Dublin, King's College London and Ca' Foscari University of Venice to discuss and reflect on the future of education and skills. Most importantly, it was a remarkable opportunity for the staff of the Science Gallery Network to listen to what this group has to say about these subjects.

Science Gallery is the natural interface between the university and young people; it enables dialogue between the academic world and hundreds of thousands of people for whom university is not (yet) an option. It is also a reality check for the university, increasing awareness of how it is perceived by the communities outside of the campus. The concept of the ivory tower may be outdated, but there is still work to do towards a robust civic engagement by the university. For many young people, Science Gallery is the first manifestation of the university in their lives. The ideas and proposals discussed at the Youth Symposium are a testimony of the role of Science Gallery in supporting the university and shaping the future of education.

The symposium engaged the audience in conversations about designing their own educational pathways, with many inspiring role models including Stacie Woosley, who created her own Master's programming, literally taking education into her own hands; or Rónán Ó Dálaigh, an award winning entrepreneur who encouraged the participants to persevere, fail and value vulnerability rather than preconceived ideas of "success". Diversity and inclusion were fundamental points of the discussion, a signal for all of how much work is still needed in this direction.

The Youth Symposium highlighted the power of culture and education to sustain and strengthen international collaborations, and all the participants valued the opportunity to be with their peers from different countries and backgrounds. In a world that is increasingly fractured and divided, international engagement with youth is a reassuring message of hope.

The Youth Symposium was made possible with the support of the British Council and the British Embassy in Dublin, to which we are deeply thankful. Above all, the energy and expertise of the teams from Science Gallery Dublin, London, Venice and International made it all happen. The sincere thanks and appreciation shared by all the participants are a testimony of the wonderful work done by the teams.

This report captures the highlights of the Youth Symposium. The most important outcome however is happening right now. The voices of the young participants are already shaping and affecting the work of the whole Science Gallery Network, giving us guidance and also clear requests. To all the young leaders who participated: it's an honour to be led by you.

Andrea Bandelli

Executive Director, Science Gallery International

Colophon/Credits

The 2018 edition of the Youth Symposium took place at Science Gallery Dublin, Trinity College Dublin.

Event Producers:

Andrea Bandelli, Kirsty Collander-Brown, Katrina Enros, Gillian Roddie

Event Facilitators:

Krysta Buche, Joanna Crispell, Mel Davies, Sarah Durcan, Emma McLean, Ciara O'Flynn, Erica Villa, Fiona Waters, Lucy Whitaker

This report was published in 2018 by Science Gallery International and edited by Andrea Bandelli, Kirsty Collander-Brown, Katrina Enross and Gillian Roddie.

The Purpose

As an organisation that uniquely focuses on the specific interests of young adults, it is critical to hear their voices and provide them with platforms to share with one another, as well as with Science Gallery staff. Over 50% of the world's population is now under the age of 30¹, yet there is a strong perception from this cohort that they are not listened to or accounted for when decisions are made². It is only through taking a moment to engage directly with young people — not just in the delivery of activities to them, but in conversing with them about how to shape those activities — that we can reflect on how to better our exhibitions, events and overall models so that are meaningful, worthwhile and engaging for our target audience.

The idea of a global Science Gallery youth symposium has long been in the works, and this first edition came about due to several converging circumstances. Science Gallery Dublin and Science Gallery International were initially asked to introduce SG London's Young Leaders to the

Euromonitor International, Generation Z: The Next Wave (May 2018).

World Economic Forum, Global Shapers Survey (2017)

Science Gallery model on the cusp of SG London's imminent launch. An idea evolved to not only provide them with information about Science Gallery, but to take the opportunity to learn from them, too. We decided it was an ideal time to introduce the Young Leaders to other engaged groups of young people from across the Network, and provide all of them with a platform to share their ideas, initiatives and vision for the Network. As the host, Science Gallery Dublin coordinated a youth-led steering group, and landed on a general theme of *fixing education*; the idea was to grapple less with specific, systemic problems in classroom teaching, but think more broadly about alternative approaches to learning, particularly in the context of a new set of skills required for the future workforce.

Target age group participants from across the Network were invited, with particular focus placed on reaching underserved communities, and ultimately included representatives from Dublin, London, and Venice.



"Today's Symposium is the heart of Science Gallery — providing safe, supportive spaces for young people to speak with freedom and allow their ideas and their brilliance to shine. the level of camaraderie, peer-to-peer encouragement is inspirational, and a gentle reminder that these young people are the decision makers, policy developers, society changers of the future, and they deserve to be seen, heard and nurtured. It's been such a privilege to hear them speak, and I've learnt so much from them."

Facts and Figures

- ► Number of symposium participants: **44**
- ➤ Science Gallery Youth Groups represented: 6
- ► Number of continents represented: 4
- ► Number of participating Science Gallery locations: **4**
- ► Number of facilitators: 9
- ► Number of live views via online feed: 40

A Brief Glossary of our Participants:



Young Leaders:

A group of 8 leaders between the ages of 18–25 from south London that shape and inform Science Gallery London. The Young Leaders include representatives from across industries, everything from biomedical students to artists, representing the talent and diversity of the south London region.





Young Leos:

Modelled on SG Dublin's Leonardo group, but designed specifically to create a safe space for secondary school students from across the socio-economic landscape of Irish Education to contribute, most Young Leos are between the ages of 15–19.

Young Voices:

SG Venice's group of young people (18–30), which consists of a 10-member advisory board, as well as a larger group of participants.

Sci-Curious:

SG Melbourne's youth advisory committee.



Transition Year Students:

The Irish secondary school system provides for an optional "gap year", which permits students the opportunity to work and learn outside of the traditional classroom context. In some locations it may not be available, due to size or budget restrictions, while in other schools it is compulsory. Over 60% of Irish students now participate in the TY Programme, and Science Gallery provides a significant amount of programming for these students; many of these will go on to become Junior Mediators, Mediators or become further involved in SG programming as they age and attend university.

Mediators:

The front of house, floor staff that engage visitors in conversations regarding exhibits. Mediators engage in active listening, provide information, and provoke debate.



Mediator (and former Junior Mediator) Izzy, with current Junior Mediator Hannah.

Junior Mediators:

Junior Mediators are still enrolled in secondary school, and are therefore only permitted to work during the summer months. They are trained in the same manner as other Mediators, but receive additional shadowing and support during their tenure.

The Youth Symposium

The day was broken into 4 parts:

- (i) Icebreakers
- (ii) Summer School Presentations
- (iii) Panel Conversation: The Future

of Education + Employment

(iv) SG Idea Generation Workshops

(i) Icebreakers

Many of the young people coming together would either not have known one another previously, or only known a small number of people in the group. We recognised that for many, shyness and discomfort might be a barrier to participation, especially with so many individuals under the age of 18 present. We committed 90 minutes to ice breaker activities, in the hopes of creating a space where everyone felt safe, and all voices welcome.

A facilitator who specialises in working with teenagers and young adults, Dave Dunn, was invited to coordinate this section. Dave used exercises that raise the voice of all participants, while also employing older participants to model friendly, ideal behaviour.

(ii) Summer School Presentations

Some younger participants had already spent the previous 4 days in a Science Communication themed Science Gallery



Summer School, learning the best techniques to become science communicators in their own right. Summer School programs included sessions on ethics, presentation skills, career paths, science communication.

Summer School Participants were invited to use their new skills, working in teams to present 4 short lectures to the Youth Symposium audience; the presentations brought much laughter to the room, and even one standing ovation.





Students' Short Lecture Presentation Topics:
Fear in and on SciComm
Perceptions in Science Communication
Reflections on Science Communication
Creepy Robots are Robots, too

(iii) Panel: The Future of Education and Employment

The panel consisted of young individuals who have attained great professional and personal achievements, and look to alternative approaches to education and pedagogy to help others reach those heights.

Panelists included:

@Brian McGuire, former Lead Mediator,

Activist, MAI Electronic Engineering

@Rónán Ó Dálaigh, entrepreneur and founder

of Thriftify, Chair of Young Global Leaders

@Emily Neenan, PhD candidate in

School of Education at Trinity College

@Stacie Woosley, founder,

Make Your Own Masters

The panel was broadcast online via Live Feed, and watched live by 40 viewers, as well as a large in-house audience that included Youth Symposium participants, as well as members of the public.

Audience Members were invited to contribute questions via an online platform, as well as during a Q&A session at the end of conversation. Questions submitted via the Slido app could be upvoted by participants.



The panelists discussed their own approach to education, including the need to create more opportunities within the University for self-directed learning supporting students' ability to critically evaluate information. The discussion, steered by the questions from the audience, highlighted how formal education systems often strip away the sense of personal freedom in students, constraining them into rigid learning pathways that do not support excellence and creativity. The panelists stressed the importance of creating stronger connections between the extracurricular activities in secondary level education and those at university level. Experiences in secondary school are crucial, and the passage to university often means students are forced to make choices that eventually restrain or inhibit their curiosity and creativity. The panelists also shared their views on how important are qualities like perseverance and vulnerability, and encouraged the

audience to take initiative and shape

their learning and educational pathways making use of all the resources and structures offered by the university.

Audience Members asked a total of 39 questions; these generated 226 "likes" or upvotes, showing a high level of interaction and interest from the audience. While only a limited number of questions could be addressed during the Panel discussion, several were discussed by the panelists and the audience during the rest of the day.

Some of the mostpopular questions askedduring the Symposiumincluded:

Do you feel the current education system (with heavy emphasis on memory retention) positively influences our development from a career and social perspective?

Do you think the world needs people who can replicate information without processing or thinking about it? Is that a useful skill, or a failure of education?

Stacie - how are you managing to get the education you want without the structure of a syllabus?

How do we overcome the barriers created by the current almost tribal political climate where if you don't agree with someone you're automatically wrong?

Can you comment on the role that resilience has played in your career to date?

What are your opinions on the new concept of continuous assessment? Do you think there can be a happy medium between this and state exams to please all?

Why do you think science is optional in secondary school and do you think it should be optional?

What are future implications of Al on employment and education?

What are your thoughts on the limited topics in the secondary school science course E.g should students be thought astrophysics at 16/17?

How can I have the confidence to think outside the box in perhaps pursuing something in my chosen course (Law)? As I fear that I may not be fully content with it.

Secondary school science is so much about learnings facts, and less about the social implications and possibilities of those facts, how can we change this?

Do you think kids should not have to decide what they want to study when they are 16?

Do you think every students course should be tailored to their qualities or their achievements???

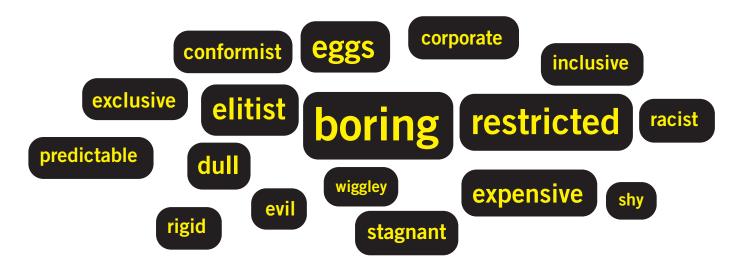
How important has creative liberty been to you on your journey?

(iv) SG Idea Generation Workshops

The afternoon was premised on the theme of trust -- trust in organisations, trust in one another, trust in ourselves. From the World Economic Forum's Global Shapers Survey, there is an observation that "young people valu[e] integrity and honesty above all other characteristics from the leaders in their country, including employers. [...] unfortunately, national governments continue to lead the list of the most distrusted organizations." What can Science Gallery do to address waning trust in all manner of organisations and institutions? Are we credible, and well-aligned to the change young people want to see? Can we do better? Can we help people to better rely on one another, and to be credible actors themselves?

What is Science Gallery *Not*?

We asked participants to tell us a little more about how they perceive Science Gallery. Rather than imagine all of the things that Science Gallery can be, we asked participants to tell us what Science Gallery isn't. A word cloud was generated from the most popular choices.



Additional words that were provided in smaller numbers include:

- ▶ unwelcoming
- ▶ populist

► school

▶ mainstream

▶ racist

- ▶ immature
- ▶ religious

- ▶ average
- ▶ repetitive
- ▶ trendy

▶ dusty

▶ neutral

The Trust Barometer

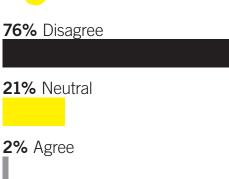
We introduced participants to the trust barometer, part of the World Economic Forum's Global Shapers Survey 2017, which measures young people's* global trust in various traditional institutions, including the judiciary, the police, corporations, and the media; it finds that trust in most institutions are at a record low. WEF's findings are mirrored by a similar survey, the Edelman Trust Barometer (2017). Yet both surveys provide insights that are hopeful and actionable, and one of our favourites is Edelman's 10th: "With the people: The trust crisis demands a new operating model for organizations by which they listen to all stakeholders; provide context on the issues that challenge their lives; engage in dialogue with them; and tap peers, especially employees, to lead communications and advocacy efforts" In order to dive deeper into the findings, we asked our own participants to measure their current levels of trust in institutions; on the whole, participants tended to be more inclined to distrust traditional institutions than respondents to the Global Shapers Survey, however, though overall majority opinions tended to align.

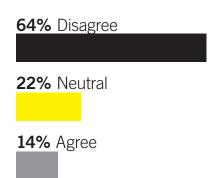
Audience

Global Shapers

I trust big companies to be fair and honest.







Audience

Global Shapers

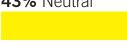
I trust international organisations to be fair and honest.

42





43% Neutral



21% Agree

20% Disagree



27% Neutral



53% Agree

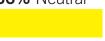
I trust (traditional) News and Medias to be fair and honest.

42

57% Disagree



36% Neutral



7% Agree

37% Disagree



22% Neutral



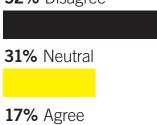
41% Agree

I trust national governments to be fair and honest.

42



52% Disagree



42% Disagree



33% Agree

Audience

Global Shapers

I trust my employer to be fair and honest.



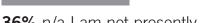
10% Disagree



12% Neutral



43% Agree



14% Disagree



29% Neutral



57% Agree

36% n/a I am not presently employed

The biggest ray of hope?

Academic institutions are the most trusted by the Youth Symposium Audience. However, their level of trust in academic institutions is significantly lower than the European average from the Global Shapers survey.

I trust academic institutions / schools to be fair and honest



24% Disagree



29% Neutral



48% Agree

12% Disagree



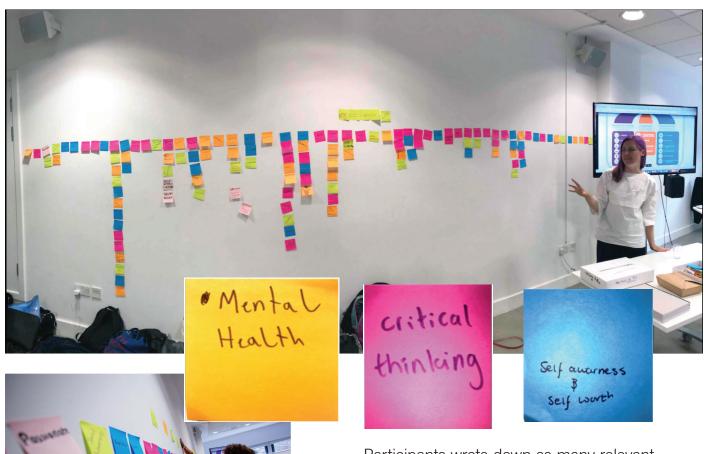
15% Neutral



73% Agree

Critical Skills for the Future

Given the record-low levels of trust in institutions, we asked participants to reflect on what skills will be needed to remake them. What do they see as the most critical skills for them to work on going forward? They were invited to include foundational literacies (e.g. numeracy, ICT skills), competencies (e.g. critical thinking, communication), and character qualities (e.g. persistence, leadership). The list of over 50 skills far exceeded our expectations; the images below show how Post-It Notes were grouped where the same or very similar skills were identified (i.e. conversation, talking).



Participants wrote down as many relevant skills as they wished, then used an upvoting system to determine which ones were most important to them collectively. The results are shared below in the *Learnings* section.



Helium Hoops

A simple exercise that requires groups to be in constant communication (both verbal and non-verbal), and to make some authoritative decisions along with some consensus. The exercise is surprisingly challenging, and somewhat frustrating. Participants reflected upon the starts and stops it can take to get it working, and the necessity of communication and teamwork.

"...no social media can create as much empathy and break as many boundaries as talking and laughing in person can."

 Erica Villa (SG Venice, Head of Communications and Development)



Postcard Memories

As end to the Symposium, we invited participants to share their reflections, visions and critiques with any part of the Network they wanted to -- with a promise that these would be delivered to the intended audiences. A map of the Science Gallery Network was provided, with key stakeholders named throughout; participants were also invited to speak with facilitators if they needed assistance identifying the best person or persons to convey their message to. Reproductions of some of the many incredible messages are found in the learnings section below.

Outcomes, Emerging Themes and Learnings

Empowerment and Amplifying Voices

We asked: Are you walking away with any ideas, initiatives or feedback that can be contributed back to Science Gallery?

"Loads. The focus on communication as an important skill was key & suggests we're all really value [sic] being given opportunities to speak at events / conferences etc." "Yes, I am. I believe that the Science Gallery can be hugely benefited by increasing industry and communication / public speaking skills."

"Love that Mediators and Young Leaders are being brought into the fold. More removal of barriers = Fab!!" "Yes, plenty of food for thought and I will reflect on all the ideas and topics discussed."

Personal Development + Skills

We asked: Do you have any ideas or initiatives that you will use for your own personal development?

"Yes, I will definitely take on all the advice from the panellists on careers. I think that I will try my best to talk to new people as well now."

"To be more self-sufficient with more self-belief in my work & direction.

"REMAIN PLAYFUL. Teams work with people they like. Don't let "profession" shadow your curiosity & friendliness as collaboration is how the world changes. SciGall is RIDICULOUSLY generous & has planted deep seeds of visible possibilities in me & I'm sure others. THANK YOU A MILLION TIMES. You've given me so much confidence in actualising my bizarre cross disciplinary vision."

"More confidence to pave my own way in life career/education wise"

"YES! My voice matters as much as anyone else's."

Skills for the Future: Communication Skills, Coding, Creativity

During the afternoon workshop, we talked about relevant skills for the future with participants, and received over 50 contributions; when asked to narrow these down to the most critical areas where they would like to see more focus, participants named:

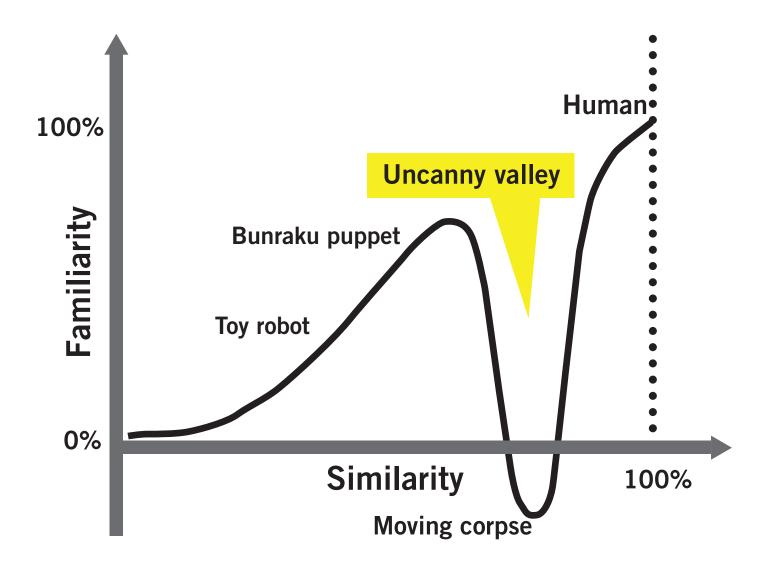
- (1) CREATIVITY
- (2) ADAPTABILITY
- (3) EMOTIONAL INTELLIGENCE
- (4) SELF AWARENESS
- (5) INDEPENDENCE

Unbeknownst to our participants, of these skills have already been identified in the top 10 required for the workforce of 2020: Creativity, Adaptability (i.e. Cognitive Flexibility), and Emotional Intelligence.

Neurodiversity and Alternative Approaches to Participation

Science Gallery recognises that there are multiple neurodivergent thinking styles, and that in any group of participants we may need to adapt our approaches. One participant, requesting an accommodation, elected to write a letter to her younger self as an alternative to group work. Following the presentation of her letter to the packed theatre, she received a standing ovation. She invited us to share that letter here [the letter remains unedited for grammar and spelling].





"Dear Eimear

So its the fabled week in summer that you cant sleep in until one and stay up browsing memes. this is the week of buses and getting lost in town.

You will find your seat at the lone table as to not force your presence on other and prepare for a roller-coaster week but you will find solace inside the complementary tote bag, a blank line less book. Conversation is a dance with no music. You know the general flow it should follow but fumble to no tune. The speakers are engaging and you will find the your mind flows with an alternate input to the topics and examples you give. But these interactions seem like lugurary since the standard conversations are too distant for you to be able to understand, sadly you know this you are different its your normal to be the outlier, the weirdo, the uncanny valley.

Some of the images to all of you are familiar or relatable. But it shouldn't be at least all of it these are my some experiences and views of my problems. Yet empathy and understanding are stretched thin and to conserve resources it can be condensed in to a single word "same".

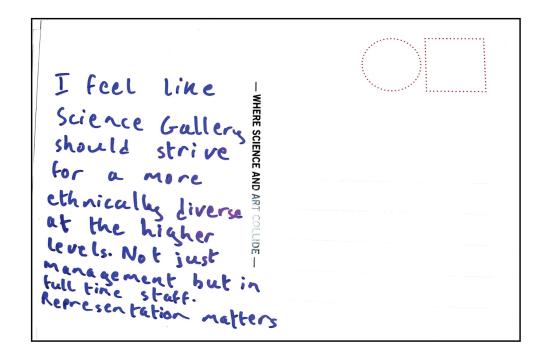
In the field of robotics we are creating more realistic robots. As they portray more human like qualities they become more endearing and relatable, yet who has seen a robot thats creepy or even uncanny? Almost perfect, but not.

But once fixing those corrections are amazing. Those creepy robots are the uncanny valley, that keyboard with two broken keys is the uncanny valley a high functioning non-neurotypical is the uncanny valley. The almost normal is more challenging than the obviously broken as we argue why doesn't it work properly all the time, why isnt it normal. Some people need to understand creepy robots are robots too.

Race, Diversity and Inclusion

Race, diversity and inclusion were common themes throughout the symposium; participants made it clear that Science Gallery needs to do better when it comes to representation.

The topic was broached in conversation and in our evaluations, and is a key area that we have identified as one that needs to be strongly focused on. We plan to create a group specifically for young people to provide feedback and a space where we can create actionable solutions together.

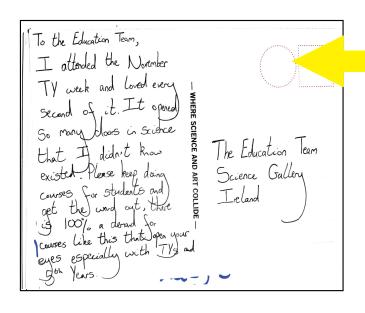


"More outreach is needed! Outside Dublin, in the streets, partnering with different organisations on different programming & events."

"Maybe try to have a bigger outreach to more diverse people. Race, economic background etc." "There were too few black & brown bodies, how can we fix this? Ambition, work ethic, drive, BARRIERS & LIMITS are culturally entrenched. There's great value in picking apart how different cultures impact these beliefs."

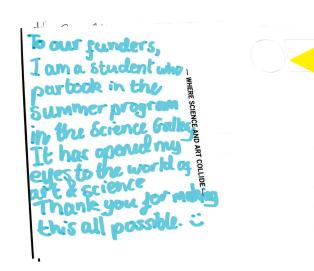
Are we succeeding?

In such a large Network with so many different activities and initiatives taking place at once, it can be difficult to measure success. Nonetheless, our participants left us with some messages of gratitude that help us know where we are still succeeding.



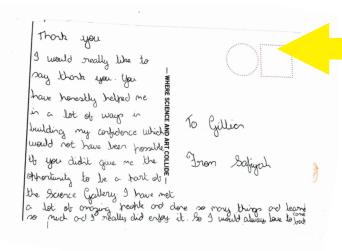
To the Education Team,

I attended the November TY [Transition Year] week and loved every second of it. It opened so many door in Science that I didn't know existed. Please keep doing courses for students and get the word out, there is 100% a demand for courses like this that open your eyes especially with TYs and 5th Years.



To our Funders,

I am a student who partook in the summer program in the Science Gallery. It has opened my eyes to the world of art & science. Thanks you for making this all possible. :)



Thank you.

I would really like to say that you. You have honestly helped in a lot of way in building my confidence which would not have been possible if you didn't give me the opportunity to be part of the Science Gallery. I have met a lot of amazing people this week and done so many things and learned a lot and I really did enjoy it. So I would always love to come back.

Dear Mediators,
You are the life blood
of Science Gallery.

Be brave, be bold,
and use your voice and April Everywhere,
Yours,

A fellow
Mediator

Dear Mediators,

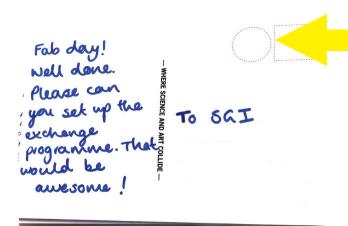
You are the life blood [sic] of Science Gallery. Be brave, be bold and use your voice.

Yours.

A fellow Mediator

We've Got Work to Do

Most of our critical feedback was delivered with a spoonful of sugar: a compliment, alongside critical and important suggestions.



To SGI

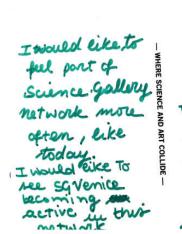
Please can you set up the exchange programme. That would be awesome!



Dear Science Gallery Dublin,

I would really love to see Science Gallery continue to grow and change and to push the boundaries. My experience as a Young Leo has been wonderful and I would hope that this role could be further developed for others in the future.

HUGE THANKS, Séan Talbot



TO 591

Elisa-savenia

Dear SGI,

I would like to feel part of the Science Gallery Network more often, like today. I would like to see SG Venice becoming active in this Network. Elisa, SG Venice Daniel Glassier of SGL.

Amazing work on setting up with such an unsvalive space in the heart of the financial, often to shifty, be shirt. Its amazing that their space is available to those the space is available to those who know about it or seek it was the own about it or seek it was good of the start of the seek it was good of the seek it that you go beyond that in terms of you go beyond that in terms of your good beyond hondon to be done to involve coth ment. I also think more on could be done to involve young people in the achial and work - oftoguise expertix comes young people in they asked heavily involving that shark I actual and work age, but by asked heavily involving that shark I accuse a high age, but by asked heavily involving that shark I accuse a high people portung tess grayed, less priveled but equally talented people who can inspire others in the same position. So it would be very exchange.

Daniel Glaser of SGL,

Amazing work on setting up such an innovative space in the heart of the financial, often stuffy, district. It's amazing that this space is available to those who know about it or seek it out but I think it is very important that you go beyond that in terms of geographical + social locations; it seems important to reach out to young people beyond London + beyond KCL's social catchment. I also think more could be done to involve young people in the actual artwork - of course expertise comes with age, but by heavily involving PhD students / academics / qualified artists + scientists you exclude + alienate a huge portion of less qualified, less privileged, but equally talented people who can inspire others in the same position. So it would be very exciting.

When Can We Do It Again?

We were so pleased to see a number of comments that encouraged us to hold more events like these, with more frequency. We didn't specifically ask a question about interest in further activities of this sort -- these comments were embedded in response to other questions. Plans for the Youth Symposium 2019 are now underway.

"Please keep holding events to get young people involved."

"I think the program was amazing and should definitely be run again."

"I thought that it was very interesting and great fun.

I hope the Symposium will continue and that I will be able to take part in them again."

"When is the next one?"

"More summer schools."

"Stay doing these Symposiums... annually!"

"...continue to facilitate symposiums like this. Interaction with Science Gallery's [sic] all over the world is an incredible opportunity."

"More of these types of gatherings should happen! It's great to feel like part of a large SG family."

"I think one of the highlights for me was just getting to know other people in the science Gallery network and seeing first hand how a fully functional science gallery looks and works.

I don't think it is possible to adequately express in words how thrilling the entire experience was except to say that I hope we can build in Venice a similar environment to what we saw in Dublin."

- Mpiti Mosothoane (SG Venice, Young Voices)



