

STEMettes
♥ ★ # +



**2021
Outbox**



**Impact
report**

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**Summer Virtual Programme
3rd-27th August 2021**

Event Overview

During the summer school break, Stemettes ran Outbox 2021, a four-week virtual programme offering free sessions exploring careers, skills and pathways in STEM. The sessions brought together young women, and nonbinary young people to learn from and interact with role models from across STEM academia, industry and entrepreneurship.

Sessions were split into three separate age streams that followed specifically tailored daily schedules:

- **Junior (7-11 years old)**
- **Connect (12-15 years old)**
- **Academy (16-21 years old)** - Academy participants gained a certification in either Python (sprint A) or Cybersecurity (sprint B).

Participants attended morning lectures, afternoon group sessions and Instagram Lives across 2 weeks, either during **Sprint A (3th-13th August)** or **Sprint B (17th-27th August)**. They had the chance to join lectures, panels, Q&A with role models and participate in group projects.

OUTBOX SCHEDULE (Tuesday to Friday)

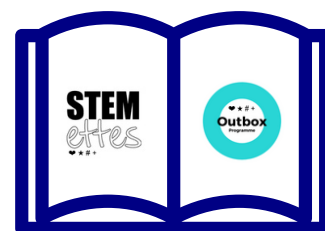
	Junior	Connect	Academy
9 AM - 12 PM	9 am Role Model Session	10 am Session (Lecture, Workshop, Panel or Q&A)	11 am Lecture (Python or Cyber)
12 - 1 PM	Lunch Break		
1 - 2:30 PM		Group Project & Speed Networking	Speed Networking & Group Study
2:45 - 3:15 PM (Tuesday-Thursday)	Downtime (Drawing, Moodboarding, Yoga, etc.)		
3:30 - 4:30 PM (Tue-Thu) 2:45 - 3:45 PM (Friday)	Instagram Live Q&A with 2 STEM Role Models		
3:45 - 5 PM (Friday)	Show'n'Tell		

Downtime sessions were optional sessions where all age groups could get together to play different fun activities. Each Instagram Live Q&A was also open to the wider public. Each Friday, participants could join the Showcase session, where they could show and present everything they had learnt and worked on during the week.

This impact reports displays the demographic data of 122 girls who attended the programme and the feedback from 89 who filled the end of programme survey.

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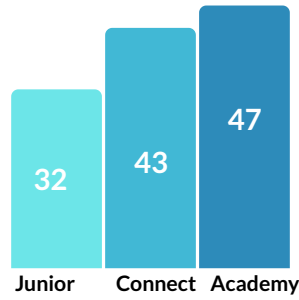


Demographics

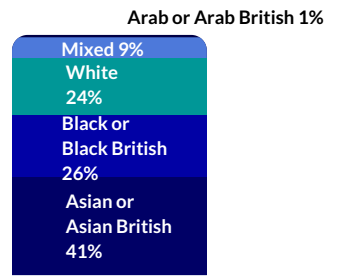
The following section details the demographics of the 122 participants of the whole Outbox programme.

“
 Outbox Connect has been an amazing experience considering the fact that it was my first time taking part in a Stemettes program. I hope to be able to attend another program in person.
 -Connect Stemette-
 ”

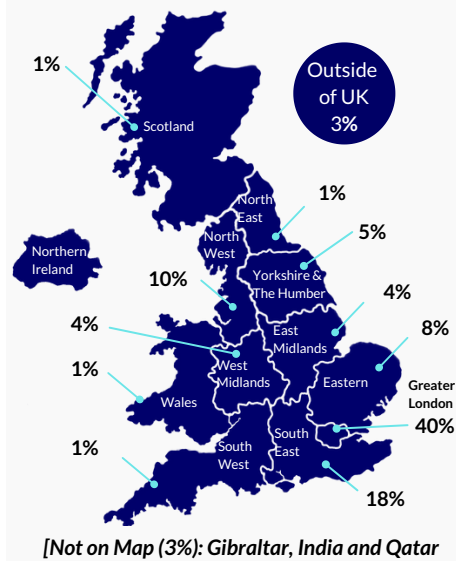
“
 I want to say a massive thank you to everyone! I absolutely loved the morning lectures and the speed networking sessions as the role models and the instructors were amazing and really kind. Last but not the least, loved the goodie bag, thank you!!!
 -Connect Stemette-
 ”



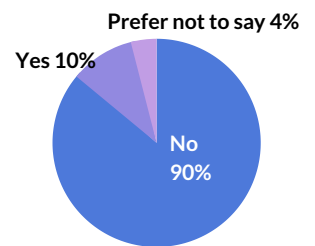
Ethnicity Breakdown



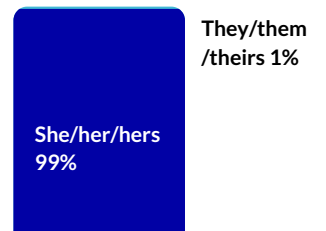
Location of attendees



Self-identified as having a disability



Pronouns



Socio-Economic data



23%

Eligible for free school meals



28%

With parents who did not attend University



64%

With parents who do not work in STEM



82%

Attend or have attended a State-funded School



Programme feedback

The following section contains the feedback provided by 89 participants from all sprints and streams of Outbox 2021.

Ratings

Participants were asked to rate the programme and its content. All scores are out of 10 with 10 being the highest possible rating.

9.33

overall rating

9.2

content rating

Nobody scored any of these questions below 5

“
The content was really diverse and engaging. It was easy to follow and understand but also challenging enough to create a really interesting experience
”

“
I thought that the content was great, and really enjoyed all the different companies that the STEMETTES brought in for us to listen to. They were all really inspiring
”

What was their...

✓ favourite part?

- Meeting the role models and asking questions
- Meeting like-minded people and working on the project together (Connect)
- Learning Python/Cybersecurity (Academy)
- Completing the activities (Junior)



most challenging part?

- Communicate and work together as a group (Connect)
- Some parts of the content (Academy)
- Thinking what to ask role models

“ I absolutely loved the networking opportunity and listening to the stories of the role models. They were so diverse, and this ensured that I related to some of the role model's backgrounds, which I appreciate.
-Academy Stemettes-



“ I enjoyed meeting new people in my age group and working with them, I liked talking and learning about different people and their jobs, I enjoyed working on our project and starting friendships with my group member and I enjoyed role models answering questions to learn about them and their career more.
-Connect Stemettes-



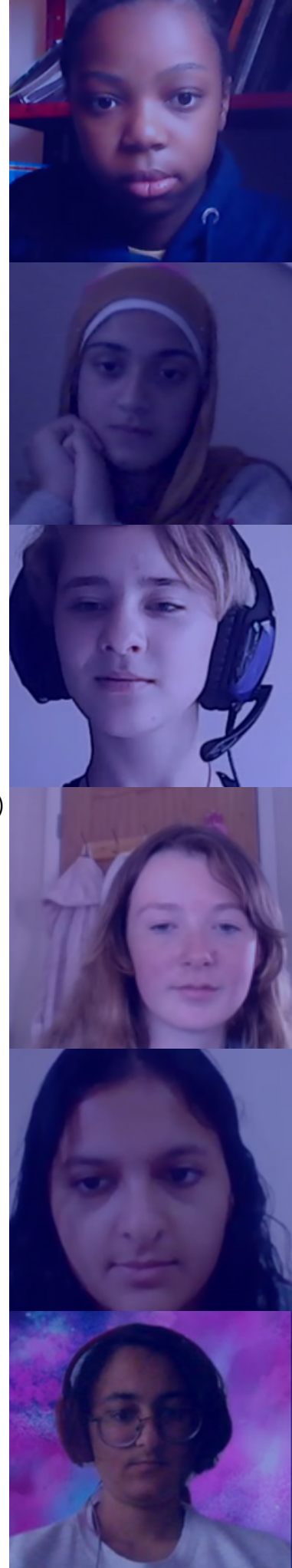
unexpected benefits?

- Connecting with other peers and establishing friendships
- Being more open and confident asking questions
- Discovering new possible career paths within STEM

“ I didn't expect to connect with so many role models who are on the same career and academic paths I want to go down. I gained some information and advice will not only help me in the future but will help me in my current academic stage
-Academy Stemettes-



“ I felt like I was a useful member of a team and the team felt like a group of friends working together
-Connect Stemettes-



Programme Impact

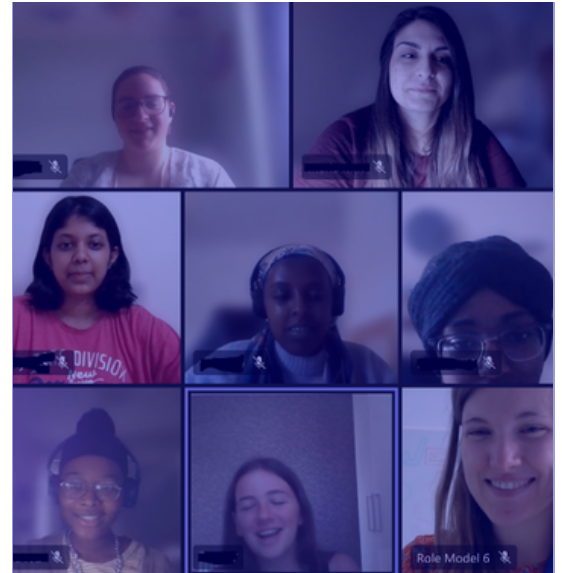
Stemettes measure the immediate impact of a programme through the improvement of five impact metrics: **perception, awareness, network, confidence and knowledge**. These five key metrics have been identified by Stemettes as necessary to increase engagement and therefore representation of young women and non-binary folks within the STEM fields. This page is based on 89 responses from participants.

How many participants feel that the following has **improved** after attending Outbox?

- Perception of STEM → **89%**
- Awareness of STEM career options → **99%**
- Network in STEM fields → **96%**
- Confidence in STEM abilities → **93%**
- Knowledge of STEM → **97%**

“ I found I was more open to asking for help and reaching out into a STEM network. I found I also learnt a lot about STEM applications in other non-stem roles which I wouldn't have considered. ”
-Academy Stemettes-

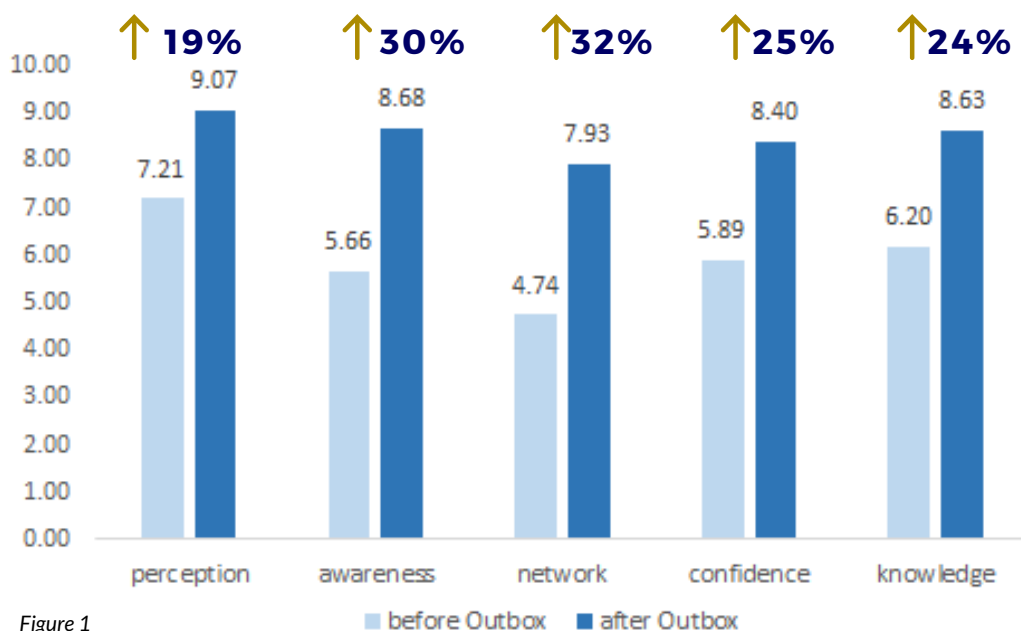
“ I have gained a lot of confidence in who I am and my ideas and some more ambition to pursue STEM :) I have also learnt a lot about skills related to tech with new websites and opportunities I can take! Thank you so much Stemettes!!! ”
-Connect Stemettes-



How much do participants feel the following has **changed** after attending Outbox?

At the end of Outbox, participants were asked to rate themselves - from 1 to 10 - **before and after** the programme in regards to Stemettes's 5 impact metrics.

Figure 1 shows that participants already had a positive perception of STEM before Outbox, therefore the possible increase was already more limited (19%). However, awareness of career options and networking show a big increase of 30% (from 5.66 to 8.68) and 32% (from 4.74 to 7.93) respectively compared to the beginning of the programme. Confidence in STEM abilities sees an increase of 25% and knowledge of STEM a 24% increase.



“ This was a wonderful opportunity which has helped me become more confident in my stem capabilities and has made me aware of the wide range of opportunities and possibilities in STEM. Furthermore the programme helped me realize the importance of networking and how fun it is while at the same time proving to be extremely helpful. I am walking away from the programme with not only better knowledge about python and networking skills but also great friendships that I hope I can continue through the future. ”
-Academy Stemettes-

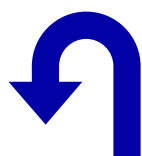
Figure 1



Impact on future decision-making

Stemettes' programmes aim to encourage young women and non-binary folks to make positive STEM decisions into industry and increase engagement in STEM fields. Stemettes asked participants whether taking part in Outbox had any impact on their future decision-making towards a future in STEM.

While 64% of people who came to the programme were already interested in STEM and its different choices, 32% now want to pursue a STEM-related career. 3% already had an interest in a non-STEM related career (from actress to TV host) whereas 1% found that STEM is not for them (just 1 person).



32%



I am now really interested in the Engineering part of STEM. Wanting a career in Engineering has never crossed my mind before and this has therefore positively influenced my A-Level choices

-Connect Stemettes-



now want to pursue a career in STEM following Outbox



I always thought I'd like to do STEM job and I still do - but I think the range of jobs we saw was amazing and there are some jobs I didn't even know about before - so I think there are so many more jobs out there that I could do which are STEM but I'd never thought of...

-Academy Stemettes-



64%

reaffirmed a pre-existing interest to pursue a career in STEM

The percentages of people who now want to pursue a career in STEM following Outbox varies depending on the stream and it decreases with age. From the youngest (junior stream) range, 59% now want to do STEM. This decreases to 29% for Connect and 21% for Academy. Older participants were already interested in a STEM career choice before Outbox. However, the programme has helped them **discover new career paths** and different roles within STEM.



I already wanted to pursue a career in stem, Outbox gave me additional skills that can help with this

-Academy Stemettes-



I realised that it is so interesting and you get to do lots of experiments which are a lot of fun!

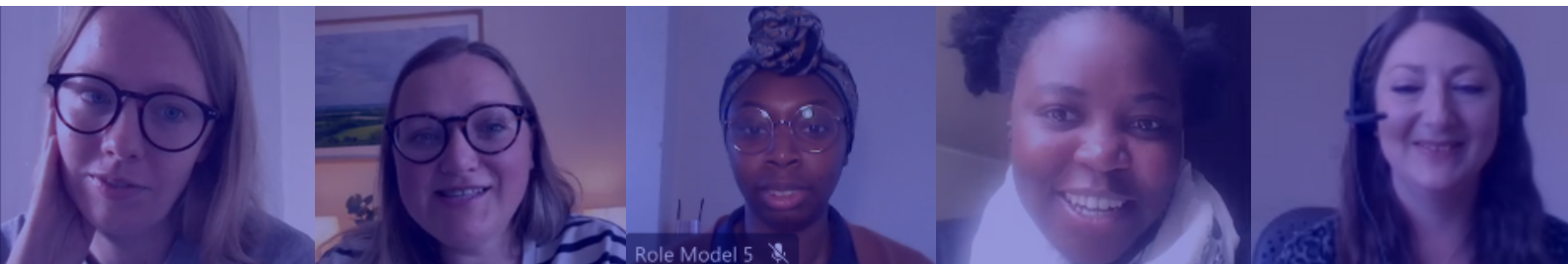
-Junior Stemettes-

Volunteers' feedback

The sessions were in majority led by volunteers from the partner organisations and the Stemettes network, allowing for a successful and insightful delivery of the programme. Throughout the programme, 138 STEMazing volunteers led and participated in different sessions over the four weeks of Outbox. The following section details the breakdown of feedback and data received from 20 volunteers from over the whole period.

- **100%** feel their time volunteering has left them inspired
- **100%** feel their time volunteering has had a positive impact on their mental health
- **55%** feel their network has improved
- **89%** feel their time volunteering has made them more likely to stay in the industry for at least the next year

“ I had such a lovely time in the session this morning- and the children were so engaged it was lovely to see!
It was incredibly well organised, I felt comfortable before the session knowing exactly what I needed to do, and the session ran very smoothly ”



Instagram Live

The sessions in numbers - You can find all the replays [on our IGTV](#)



16

IG lives across the 4-weeks programme



2,387

live views across the 4 week programme



5,194

views across all sessions from 3 August til 17 September 2021



100%

would like to take part in another event



9.24

average rating of the sessions

How many participants feel that the following has **improved** after the IG Live?

PERCEPTION of STEM 88%

AWARENESS of career choices 96%

KNOWLEDGE of STEM 88%



Everything! Like seeing everyone's questions, asking my own, meeting the two daily role models, and finding out more about the role model, finding out about their jobs and the STEM aspect of their job!

It keeps me so interested and normally I can't stop fiddling but it captures my attention for the whole hour. I wish it was longer because time flies when you are interested.

-Connect Stemettes-



Focus groups with Juniors

TeamStemette ran a focus group with 7 participants from the junior stream. This consisted of a 30 minutes group discussion where they talked about their experiences and thoughts regarding Outbox, giving them the chance to connect with their peers outside the programme. The main objective of the focus group was to discover the motivation behind joining the programme and what impacted them the most.

Motivation to join Outbox

Participants discussed how they all liked STEM and wanted to be busy during the summer break - favourite subjects ranged from chemistry to coding. One common theme was the desire to meet like-minded people who enjoy the same things as they do (sciences).

Main takeaways from Outbox

All attendees expressed how much they enjoyed meeting all the role models, asking them questions and getting to know different roles and careers. They discovered jobs they did not know existed - making those roles achievable and visible to them now. They also loved meeting peers with the same interests as them, making them feel part of a group and not outsiders.

Moreover, folks stated how important they think it is to have programmes like Outbox so "we can show the world a woman is as smart as a man". Even though they did not show prejudices against girls doing STEM, they had not been in contact with many feminine STEM role models before.

They all said they feel more confident regarding their skills after having attended the programme - particularly, they felt more confident about what they have discovered they can achieve. Attendees were looking forward to coming back to school to talk about Outbox to their friends.

"I will tell my friends I went to this really cool online programme where I learnt a lot, met a lot of people and had so much fun"

