EDUCATION IS GREAT
BRITAIN & NORTHERN IRELAND

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Driving through and breaking gender stereotypes

An all girls team's experience competing in the F1 in Schools™ World Finals

Formula 1® is seen as a traditional male sport, indeed all the drivers taking part in this year's Formula 1® season are men! However 'F1 in Schools™' the sports' official education partner and the world's biggest school STEM (Science, Technology, Engineering & Mathematics) competition, that was set-up in the UK, has taken great steps so that's not the case at school level.

This year at the F1 in Schools World Finals in Singapore, 40% of the finalists taking part were girls – the highest ever number of girls to take part, in a competition that has 50 teams and 273 children compete from 22 countries spanning 4 continents.

I had the privilege to meet one of the seven all girls' teams that took part in the F1 in Schools World Finals 2018, to discuss the competition, STEM education and the culturally held gender sterotypes that can have a negative impact on education outcomes and ultimately country's economies. This is an issue schools, educationalists and governments across the world are trying to redress.

The four girls that made up 'Team Lucendi' from Garden International School were: Masa Nooh: Team Manager, Zuairia Shahreen: Design Engineer, Sayonee Das: Graphic Designer and Vira Verkhedkar: Sponsorship Manager.

Why did you become interested in F1 in Schools™?

All the girls first became interested in F1 in Schools when they were introduced to the competition in Year 9, when the school holds an F1 in Schools competition. Taking part in the competition fostered their initial passion and they have continued to take part in the competition in Years 10 and 11. This year they succeeded to be chosen to represent the best of the international schools in SE Asia in the F1 in Schools Finals. A great achievement given team Lucendi were the second youngest team in the World Finals: all the team members are 15 years old and haven't yet taken their IGCSE's.

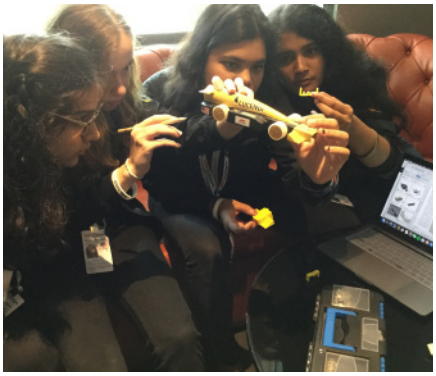
Tell me about the F1 in Schools™ competition?

Team Lucendi members knew about Formula 1, but weren't aware of all the skills that go into making a world-winning team. As well as engineering, aerodynamics and design, a successful F1 team also requires strong management, marketing and negotiating skills in order to raise the significant financial sponsorship required to compete in the F1 Circuit. The F1 in Schools competition tests all these skills. Teams have to design and build miniature F1 cars that are raced on a 20 metre track, design a Pit Display that has to be erected in under 2 hours, give verbal presentations to a team of judges and answer questions about the engineering of their car and raise cash sponsorship. To take part in the F1 in Schools World Finals, the team had to raise a minimum of £12,000.

MOST MEMORABLE MOMENTS

“ Seeing F1 behind the scenes and all the work that goes into it. The engineering, determination and adrenalin. It was really inspiring!”







How much time was required to take part in the competition?

In January 2018 the team were selected to take part in the F1 in Schools World Finals. The Finals took place in September 2018 in Singapore, so the team had 8 months to complete their entry.

To begin with the team met for two hours every week, but in the last month leading up to the competition they were having to spend two hours a day on their competition entry. They also had the additional difficulty of working as a team remotely when team members were in Jordan, Bangladesh, India and Malaysia for their summer holidays.

“It was a real team effort. We are all Prefects and have a similar work ethic and goals, so there weren’t any big arguments. We stayed in contact over the summer via WhatsApp, Instagram and Google Drive. Apart from working together on the competition, we also supported each other with our schoolwork and also had a lot of support from our teachers.”

What new skills did you learn?

All the team members think it was a valuable learning experience and that they’ve learnt lots of valuable skills for their future education and careers:

- Commitment: working late nights and weekends and during the holidays;
- Efficiency: using available time efficiently and putting in hard work to get the best results;
- Problem Solving: learning to break down problems to come up with solutions;
- Resourcefulness: using resources in the school and from sponsors;
- Confidence: presenting their ideas succinctly and being able to answer unexpected questions from judges.

What can the F1 in Schools™ organisers do to encourage more girls to enter the competition?

- Continue to make the advertising of the F1 in Schools competition more relevant to girls;
- Hold more F1 in Schools competitions in all-girls schools as well as all-boys schools and mixed schools;
- F1 in Schools judges should be a mix of men and women;
- Encourage girls studying Engineering and similar subjects at university to get involved in the competition;
- Organise STEM primary school competitions, before children are exposed to gender stereotypes and also enter puberty which tends to create rivalry between boys and girls.

MOST MEMORABLE MOMENTS

“ The cultural enrichment and making new friends from all over the world.”



What was the biggest motivation to take part in F1 in Schools™?

Apart from the skills and experience the team gained, the team members also wanted to inspire more girls to study STEM subjects.

The team Lucendi moto was: "Inspire young women to go into STEM fields."

These girls practise what they preach. All the girls plan to take STEM subjects at A' Level: mathematics, further mathematics, physics, chemistry, biology, design technology; with one exception, Sayonee, may also choose English literature.

When the girls finish their higher education their currently favoured careers are in STEM disciplines: Engineering, Dentistry, Architecture, Medicine and Law.

Why aren't more girls studying STEM subjects?

The girls feel parents can be the biggest problem. Parents tend to focus more on their boys' education at the expense of their girls' education and will push boys into STEM subjects while girls are left to their own devices. Parents also view career choices for boys as being more important than for girls, because girls will eventually get married and have families.

This gender stereotype is also fostered by culture and society. As girls don't receive the same amount of encouragement and tend to lack confidence, they don't choose STEM subjects and instead and drift into subjects that are seen as girls subjects, such as English literature, journalism, business and psychology.

All the members of team Lucendi are concerned about this issue and want to challenge the gender stereotypes that they are continually being confronted with. As an example, 80% of the judges at the F1 in Schools World Finals were men, and there were very few women working in engineering for the Formula One teams at the Singapore Grand Prix.

Team Lucendi believe there are not enough role models for girls to aspire to, and they want to change this by being F1 in Schools judges in the competition's SE Asia Finals next year.









Why have these four girls bucked the trend and aspire to have STEM careers?

Role models have played an important part in helping shape the girls' ambitions.

All The girls' role models were women: family members with STEM backgrounds, such as grandmothers who were maths or physics teachers; an older sister studying Engineering in a heavily male dominated class - where she's one of three girls; their teacher Miss Deakin who's Head of Physics at their school; famous role models were world-renowned architect – Zaha Hadid and musician Taylor Swift, who's succeed as a woman in a male dominated music industry. All four girls' parents were also working in STEM fields, such as Engineering, Medicine and Law. So it can be assumed the girls have been positively exposed and probably encouraged to follow STEM paths. This may be why the girls have always been more interested in STEM subjects and STEM competitions at school rather than the Arts.

Sayonee, then realised that not one man had featured in the girls' initial choice of role models. She therefore added her grandfather who came from a poor background in India and successfully studied and qualified to become an Engineer and made enough money to build his own house and educate his family. He was her best friend and her inspiration and started her obsession with physics and astronomy and also showed her what a good education and hard work can achieve.

What policies should the Malaysian Prime Minister introduce to support girls from disadvantaged backgrounds to study STEM subjects?

- Female recruiters to go into state schools to choose worthy girls for scholarships at independent schools. The girls to not only be chosen on academic ability and intelligence, but also their motivation, passion and resilience;
- Female recruiters to talk to family members to help overcome culturally held gender stereotypes;
- More female role models to show girls what they can achieve and provide the inspiration to achieve;
- Reserve spaces for girls in STEM subjects;
- More career guidance in schools at an earlier age and to have successful women in STEM careers give talks and share inspirational stories in schools;
- Public libraries in rural townships to provide free access to books, computers, digital resources and the Internet in order to provide access to information and to improve literacy rates;
- Incentives to encourage families to support their girls' education.

All the girls were confident that with time, education and a culture change, more women will succeed in industries and careers that have traditionally been seen as the preserve of men – including Formula 1®.

To find out more about the F1 in Schools™ S.E. Asia competition please contact:

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