Leadership in Action Project Reflections: A Summer with Change the Code

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This summer, I had the privilege of working with Change the Code, a student-led organization that aims to improve the gender imbalance in STEM. Change the Code already had chapters in Bangladesh, India, and Hong Kong and were aiming to establish a chapter in the UK.

Project Overview:

Week 1:

The project started with orientation and ice-breaking activities. We discussed the issue of the gender gap in STEM fields, and the problems which it can cause. STEM jobs are associated with income and influence. Therefore, the lack of females in STEM careers is problematic for gender equality. STEM graduates are in short supply and the lack of women pursuing STEM careers limits the country's capacity to address this.

We researched existing organizations aiming to support Women in STEM. There are existing UK organizations supporting women at university or in industry, but there is a lack of organizations for students in high school. A key barrier to women entering STEM careers is that there are a lack of female mentors and role models in the fields, meaning women are often missing support.

Week 2:

As well as wanting to provide support to high school students, we decided to host an online summer school with four workshops, each inspired by one of the STEM fields. Each workshop would be inspired by a STEM career and be targeted at female students in years 8 and 9. We encouraged students to attend all the workshops, so they could build relationships with other participants. I started to develop a technology workshop to teach the basics of Python programming. The workshop focused on producing music with code, using EarSketch.

Weeks 3-4:

The next two weeks were dedicated to producing lesson plans and presenting them to the team to get their feedback. My workshop consisted of a programming tutorial and following this, I asked the students to produce music for a video game, simulating work as an audio programmer. We were also all recruiting students for workshops.

Weeks 5-6:

Despite our outreach efforts, we weren't able to recruit enough students for our workshops. We explored several solutions, including running the workshops over a series of weekends, or reformatting them as online courses.

Ultimately, we decided to develop online courses. This meant that our courses would have wider reach, with no capacity-limit, and would be available long-term. Furthermore, there would be the potential to add new courses in the future.

We identified and prioritised the key features we were looking for. After trialling numerous platforms, we decided that LearnDash was the best option. We then developed our learning platform and uploaded our courses.

At the end of the project, we reflected on the summer and the future of the project. We also brainstormed ideas for future scholars joining the project.

Screenshots from our learning platform and technology course.

Post Project:

After developing our courses, we will continue to contact schools and organizations in different countries to amplify our reach. We would also like to host a one-day international ideation competition for our students, allowing our student to meet each other and use the skills they have learnt.

<u>Outcomes and Reflection:</u>

The project involved collaboration and team-working throughout. We all worked collaboratively to share our resources, knowledge, and experience. As a team, we spent time brainstorming and evaluating a range of ideas. The wide range of ideas, experience, and viewpoints that everyone brought to these brainstorming sessions were critical to the overall success of the project.

I had set some personal development goals for the summer, which included developing my communication and presentation skills. I regularly presented my ideas and research to the group and I also had to be self-critical of my own presenting style, to ensure the course content was engaging.

We encountered several obstacles, specifically the problems we faced with recruitment. This taught me how to critically evaluate our progress and when to change our approach, to minimise losses. Despite our disappointment that our original idea hadn't been successful, we exhibited resilience and instead looked at the new opportunities our approach would bring. I had to be adaptable, as I was challenged to try some completely new things, such as branding, outreach and marketing.

Although there is still some work to do on the project, I believe the platform we developed has the potential to encourage more female students to pursue STEM careers, and on a larger scale than we first anticipated.