

ENTHUSE Partnership increases attainment and narrows attainment gap for disadvantaged students

The attainment gap between disadvantaged and non-disadvantaged students is a national issue, however it is particularly prevalent in Wirral schools. This partnership aimed to improve teaching and learning in both science and design and technology, with a focus on improving outcomes for disadvantaged female students.

Working in collaboration, this partnership was jointly supported by STEM Learning and the Tomorrow's Engineers programme.

Led by Upton Hall School, the project involved Wirral STEM Partnership for Girls- a group of six single-sex girls' schools in Wirral, Merseyside. Wirral is socio-economically diverse; it is home to some of the most affluent areas in the England, and conversely, some of the poorest, which presents a wide range of challenges for schools.

What was the impact?

The main focus was to develop the effectiveness of teachers in science and design and technology when delivering concepts linked to maths. The partnership created a professional development programme that helped teachers to better understand and deliver mathematical concepts in the classroom, and gain greater awareness of how mathematical principles are applied in the engineering industry.



For students

Reduced attainment gap: Over the two-year partnership, disadvantaged student attainment has increased, with a significantly lower number of students performing below age-related expectations.

Increased student premium attainment: Students performing at or above age-related expectations increased from 76%

For staff

Improved collaboration: Teachers stated a 64% increase in their ability to collaborate with other STEM colleagues.

Increased motivation for students: Teachers showed a 46% increase in ability to motivate students to attend STEM-related (and engineering specific) extra-curricular activities.

Improved enrichment knowledge: Knowledge of enrichment opportunities to

in September 2017 to 83% at the end of the partnership in 2019.

Increase in aspirations for STEM careers: Students increased their understanding of STEM opportunities and had higher self-belief that they were the kind of person that could work in a STEM career.

support STEM education in their school increased by 40%.

More effective employer partnerships: 71% increase in teachers' ability and knowledge to work effectively with employers (and more specifically, engineering employers) to support STEM education in their school.

What activities did the partnership undertake?

In the first year, the partnership focused on creating enrichment opportunities for their students. This included attending the Big Bang fair, a Women in STEM event and cross-partnership competitions. They also introduced a STEM focus at the schools' own careers events.

Teacher activity focused on providing subject specific professional development opportunities. This included creating subject networking groups and attending professional development both locally and at the National STEM Learning Centre in York.



In the second year they further developed collaboration between teachers, including running further networking meetings, sharing knowledge gained from training through collaborative planning and creating bespoke training whereby qualified consultants were provided by STEM Learning to run in-school training sessions.

Next steps

The schools in the partnership will continue to work together closely, particularly the design and technology departments, which have developed a close-knit network over the two years.

Having seen the benefit, the schools now have the foundations for continued, impactful engagement with enrichment opportunities to help support and enthuse future cohorts of students – including those from disadvantaged or underrepresented backgrounds.

The partnership intends to continue their collaboration, through networking meetings and further student enrichment activities.