

Digital leadership in schools and the impact of the Young STEM Leader Programme

by **Steve Beattie**

Two years ago, I was tasked with STEM development at my school and was told that the Young STEM Leader Programme was something worth being involved in. I was fortunate to get to work with a range of educators from primary and secondary backgrounds across Scotland with the emphasis of using the STEM subjects to build confidence and capacity in our young people. After the pilot year and being under the restrictions of a pandemic, I applied to and was successful in being appointed to the role of Associate Regional Trainer and Verifier (ARTAV). While in post as an ARTAV, I have supported practitioners across the Tayside Regional Improvement Collaborative, while still developing and delivering YSLP in my own school.



Depute Head Teacher at Hayshead Primary School, Angus (@HaysheadPrimary) Associate Regional Trainer and Verifier (ARTAV) for the Young STEM Leader Programme

Hayshead Primary School STEM and Digital Journey

Hayshead Primary School is in an area of deprivation with an average of 40% of pupils in each class having additional support needs. The school itself caters for over 500 children with 50 members of staff. Coupled with policies such as the Digital

Learning and Teaching Strategy for Scotland and evidence collected across our community, there was a need to utilise digital tools more effectively, which started our digital journey in 2017. This became an improvement priority, where staff confidence was low, pupils' skills were limited and thus there was no clear pathway to using these skills for learning, life and work.

On working in partnership with our school community we began to act on developing our digital skills and competences, while also providing greater focus on all the STEM subjects. Our pupil voice, particularly our Digital Leaders (Primary pupils aged between 8 to 12) had an active role in upskilling pupils, staff and parents. This helped to build our reputation in STEM delivery. >>



Examples of STEM and digital technologies being used and led by children.



Young STEM Leaders in action: face-to-face and online.



Impact of the YSLP

To increase the impact of STEM across the school, we signed up to the pilot of Education Scotland's STEM Nation award and the YSLP pilot simultaneously. This was based on the need to provide a more rigorous approach and opportunity for children to become positive role models for STEM and to increase engagement and appreciation of STEM across the learning community. The YSLP was a perfect fit: it focuses on peer-to-peer activities led for and by children, which also helped achieve the *Leadership in STEM* element of the STEM Nation award.

The YSLP was first to run parallel with our Digital Leaders who used this platform to teach robotics to other pupils. This year has seen the YSLs provide support in the recruitment of new Digital Leaders, where existing Digital Leaders had to plan, create and deliver activities to support the application and interview phase. They collaborated and met on Teams due to COVID-19 restrictions and, created PowerPoints and videos to provide support and encouragement so that all children could be included, no matter their academic level. The YSLs created the applications and a tool to track and provide feedback. In person interviews were carried out, which tested each STEM Leader in how they questioned and empathised with the interviewees.

This was the first time our children had led this type of process and this method will be used in future. The YSLs grew in confidence, became more resilient, effectively communicated as a team and developed important skills required for the world of work.

As well as developing STEM and digital skills, the children involved have achieved accreditation and enhanced an existing programme already in place. This required very little extra work as the YSLP website provided clear and precise instructions on how to complete each section. For the children receiving input and lessons from the YSLs, they have shown an increase in STEM capital and are currently undertaking YSL2 themselves.

The YSLP does not need to be carried out in isolation, in fact I would discourage this. The programme could be introduced to a specific group like we have done but could have a positive effect with a whole class group at YSL2 or YSL3.

Next steps and future planning

Those continuing as YSLs within our school will seek further opportunities to share their journey and learn from others so that they can provide support when With the effective partnership set up between us and our associated secondary school, Arbroath Academy, our qualified YSLs will return to us and support STEM development at our school, while also being able to continue to work towards the formal levels of the YSLP at secondary school.

Due to the high level of ASN in each class and being a resourced school with an ASD specialism, I feel the YSLP lends itself nicely to meeting the needs of all learners as the award can be carried out in several ways which does not discriminate against those with barriers to their learning. I envisage more children being part of the YSLP in the new session and beyond.

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Find out more...

To learn more about the Young STEM Leader programme and start delivering it in your school community or youth group, visit www.youngstemleader.scot, email us youngstemleader@sserc.scot or check out our [@YoungSTEMLeader](https://www.instagram.com/YoungSTEMLeader).