**Valuing School and College STEM Technicians**

SSERC has been a long-standing supporter of the school STEM Technician community, a profession within Scotland's secondary school sector that appears to be undervalued, underused and overlooked despite being a critical in-school resource that can support the vital role that practical activity plays within the STEM curriculum.

There continues to be a wide range of different views within the educational landscape of Scotland as to the nature and purpose of practical work. SSERC recognises the educational value of practical work and believes it should constitute a significant proportion of a learner's time when undertaking a STEM-based curriculum. We believe that practical work serves the following purposes:

• to motivate and engage learners

• to teach the principles of STEM inquiry

• to develop specialist skills, e.g., measurement, observation

• to underpin the theory through practical skills

• to develop other skills and attributes such as communication, teamwork, and creative thinking.

Practical work has undoubtedly been a casualty of the pandemic. For the newest cohort of STEM teachers entering the teaching profession, the opportunity to acquire and develop practical skills that could be deployed in the classroom may have been negatively impacted.    SSERC has contacted all Scottish Local Authorities to offer support and assistance. But might there already be a solution in-situ in all secondary schools and Local Authorities in Scotland?

Technicians are a vital part of not only each of the various departments or faculties that deliver STEM education but also the whole school. Not only do they curate equipment and prepare experiments on a day-to-day basis, but they also work with teachers to develop new practical activities; they are often experts in health and safety and are responsible for purchasing equipment and consumables. They are important for the morale of the various STEM teams. Reducing technician support puts additional demands on teachers who are already hard to recruit and retain. This has impeded opportunities to offer essential practical work support for STEM teachers, including newly qualified and early careers.

The school technician profession appears to be an 'easy target' when it comes to cost-cutting initiatives. Decisions may be made based on limited knowledge and understanding of the technician's current role in supporting the broader STEM curriculum in schools.

Although SSERC has recognised the school technician's expertise, others have underrated and unacknowledged the technician's profile and professionalism. This poor regard is frustrating and may also have prevented training and mutually beneficial progression of the role. An untapped pool of knowledge and skills could be further utilised and developed to support practical work. Technicians tend to have the flexibility to manage workloads, as lesson timings do not confine them, and so may be able to provide training in practical work. STEM technicians can offer help and training to all STEM teachers unfamiliar with practical work in the STEM curriculum and, in many cases, already provide this service. So, technicians are in an excellent position to offer training for less experienced teachers and their students. Much more should be made of the skills that this body of people has to offer.

Despite the ongoing challenges it faces, I continue to be impressed by the enthusiasm, commitment, and determination of the technician community in Scotland. I hope that by raising this issue, you can appreciate their contribution to STEM education and training in Scotland.

Alastair MacGregor, CEO, SSERC

SSERC- for more information about SSERC, visit <https://www.sserc.org.uk/what-we-do/>

STAC – for information about the Scottish Technicians’ Advisory Council, visit <https://www.sserc.org.uk/wp-content/uploads/2021/11/STEM-Tech-01-STAC.pdf>