Following the Committee’s report Teacher Workforce Planning for Scotland’s Schools and subsequent responses by a number of education bodies, including Education Scotland, the Committee has asked for Education Scotland’s perspective on two comments made by ADES in their response.

STEM SUBJECTS

Education Scotland recognises the challenges faced by some schools and departments in recruiting teachers to fill vacant posts. Inspection of secondary schools across the country over the past two years has identified that staffing has been an issue, particularly in STEM subjects. These shortages can affect a school’s capacity to take forward improvements, and it is clear that more needs to be done to recruit science graduates to the profession and retain them once training has been completed.

Education Scotland, therefore, welcomes the measures being introduced by the Scottish Government, universities and local authorities to increase the number of teachers being recruited. High-quality graduates and professionals seeking a career change, particularly in STEM subjects, are being attracted into teaching via initiatives such as the Teaching Makes People recruitment campaign and the new routes into teaching being offered by universities. Education Scotland has contributed to the work of the Teacher Workforce Planning Committee and to the development of the Teaching Makes People recruitment campaign materials.

The paper from ADES reflects the range of interventions being used by schools, and the positive efforts of staff, to minimise the disruption to children and young people.

Education Scotland supports teachers in a range of ways across the STEM agenda. As the National Qualifications were being introduced, we worked closely with local authorities to organise 16 National Qualifications Writing Group events. A rich bank of classroom resources was co-developed with secondary science teachers through this process. These resources continue to be available through Glow, with the hosting page for these resources being accessed 178,903 times since the resources were first released in May 2015. Teachers also have the opportunity to share practice, ideas and resources and to get advice through the Glow Yammer Network. Around 18-20,000 practitioners are now on the Yammer platform.

The Scottish Government published its Digital Learning and Teaching Strategy in September 2016. A key element supporting implementation of the strategy is the provision of the national online learning environment, Glow, which provides free
access for all learners and teachers to a range of online tools and services, including Microsoft Office 365 and Wordpress blogs. We are currently piloting Google Suite for Education.

We have observed some creative solutions to address staffing shortages using technology. This includes the e-Sgoil project in Comhairle nan Eilean Siar. E-Sgoil was set up to use technology, including Glow, to provide a wider and more equitable choice of subjects for pupils across all secondary schools in the Western Isles. Teachers use video links to teach classes in a variety of locations, and the service has now spread from Comhairle nan Eilean Siar to schools in a number of locations across Scotland.

In addition, Education Scotland staff work with an extensive range of national partners and providers to provide advice on teachers' needs and the curriculum and to encourage them to shape their offer to address these. An example would be our work in partnership with Skills Development Scotland on the Digital Schools Programme which this year is piloting: alternative career-long professional learning approaches, such as e-learning through the SQA Academy platform and immersive training with Codeclan; remote learning for targeted computing science students through e-Sgoil; and setting up Computing Science hubs across Scotland to build on current and previous hubs in partnership with Microsoft and the British Computing Society.

Through an innovative partnership (involving The Wood Foundation, local authorities, Scottish Schools Education Research Centre and Scottish Government), Education Scotland is also leading a 33 month pilot programme to support science and STEM in the broad general education. The RAiSE (Raising Aspirations in Science Education) programme is a £1million pilot programme to build the capacity and support available for teachers. As a result of this programme, there are now more than 12 staff based in local authorities to lead and support teachers at a local level in relation to STEM.

**BI-LEVEL AND TRI-LEVEL LEARNING**

In recent secondary school inspections, Education Scotland has observed schools adopting a variety of approaches to address staffing shortages. We also recognise the professionalism and efforts of staff, including senior staff, who cover classes to minimise disruption to learning and teaching.

Some local authorities offer enhanced consortium arrangements and alternative pathways to enhance the range of curriculum, qualification and subject options available to learners. These include Advanced Highers, Skills for Work Courses, Foundation Apprenticeships and National Certificates. These consortium arrangements and partnerships often involve a number of secondary schools working collaboratively with other schools, colleges, universities, employers and other partners to provide a wider range of subject choices and pathways than any one school could provide. Such arrangements can help avoid the need for bi-level and tri-level teaching in individual schools.
Education Scotland’s Senior Phase Design Group is also looking at models and approaches to flexible timetabling and collaborative working with partners to enhance the range of pathways and options available to learners. The aim is to ensure that the Senior Phase meets learners’ needs and equips them with the skills to achieve their ambitions. These models have been designed to work within the real-life contexts and reality of schools and authorities, including those facing recruitment challenges. For instance, collectively timetabling young people in S4, S5 and S6 as a single group, rather than as separate year groups, can extend the options available to learners and, at the same time, reduce the need for bi-level and tri-level teaching.

CONCLUSION

Education Scotland is proactive in using its intelligence to support innovation and the sharing of successful approaches. We welcome the measures that are being introduced by the Scottish Government to increase the numbers of teachers entering the profession, and the steps taken by local authorities and schools to minimise the impact of staffing shortages on the quality of learning for children and young people.

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