Covid-19 impact

This inquiry will look at the impact of COVID-19, and measures adopted to manage the pandemic. Specifically, we will be looking at the implementation of critical workers policy, the effect of cancelling formal exams, support for pupils and families during the closure, and the effect of school closure on disadvantaged groups.

S4 Introduction

Swansea University Science for Schools Scheme (S4) is working to widen access to science education in low participation demographics through outreach (workshops, shows, summer schools, taster days, mentoring programmes). We aim to increase the socioeconomic diversity in STEM education participation in Wales. Our STEM outreach programmes are free of charge, designed & taught by university research scientists in campus-located, accessible, and inclusive outreach spaces, by a gender-diverse staff.

We are submitting evidence as we work closely with eight schools in and around the Swansea area, and have been in touch with these schools about their experiences during the COVID-19 outbreak. Most notably, we have received substantial feedback from three schools, referred to in the text as Schools A, B, and C for anonymity.

School Name	Number of pupils	Percentage Free School Meals	POLAR 4 Quintile	Support Category
School A	988	29.4	2	Green
School B	1026	24.6	3	Amber
School C	1220	21.9	2	Green

The feedback from these schools is summarised below, as the teachers had emphatic views about provision of school meals, differential schooling provision and capacity within their wide spectrum of pupils and the effect of exam cancellation. In addition to this, we consider the possible impact of the COVID-19 pandemic on S4.

The implementation of the critical workers policy

School A is currently receiving small numbers of students. The school is well staffed and supported to remain open. This school is looking to move to a hub school model in the next few weeks.

School C has dealt with, and organised, rotas and communicated with feeder schools well. Initial difficulties were in gauging the level of need for childcare provision. The school is providing childcare to key workers but the level of cover has been low between the primary staff and school staff (on an 8 week rota). The school has communicated well with staff and has been considerate of staff with young children, staff with health issues or that are carers. [This is not the case for teachers in other schools who are made to go to school weekly, causing stress and pressure with regard to child care, especially where there is a high risk for exposure (with no protection), and the home environment involves vulnerable parents].

The effect of cancelling formal exams

In School A, students who were entered to sit exams early are concerned because these exams will not receive a predicted grade and therefore the students will need to re-sit these next year. In Science, for year 11, the average of the 4 previous exam grades seems to be producing a reasonably fair prediction for students (controlled assessments from January are not included though, and this would have been better).

For School B, the cancellation of formal external examinations is difficult for the year 10 exams because the pupils can normally be motivated as they realise at this point that they need to work for their qualification. If results now mainly depend on these grades, it may disadvantage many of the pupils, and specifically those who have properly engaged going into year 11 (likely to be the case in other deprived schools). If the WJEC provided science teachers with practical exam results from January, it would give them more of an informed opinion on grades expected of their pupils (this is science-specific). With no consistent approach to end-of-topic testing across schools, using this data would be unrealistic.

Cancellation of formal exams has caused huge stress and pressure, and its impact on pupils is considered immeasurable. School C has had messages and emails from students panicking about grades and how the situation is going to impact their future education and acceptance onto further education courses. Predicting grades and rank-ordering School C pupils has been particularly difficult, especially with the GCSE double award cohort. These grades are averaged from papers sat in all three Sciences and added to coursework marks. It has been challenging to award these grades because a pupil may be good in one science and not the other two. The school is now relying on year 10 grades and UMS to predict their year 11 outcomes, and teachers have then gone through each student's performance in each subject and tried to feedback/ justify changes with regard to tests/ mock exams etc . Even so, it is hard to agree on some pupils. In trying to give the pupils the fairest grade possible, the school has to evidence the process, something compounded by trying to factor in re-sits, changes in paper from foundation to higher, higher to foundation etc. [An example of this is: A pupil who had passed year 10 Biology but failed Chemistry and Physics was determined to do well this year in order to pursue Biology in further education. They asked to re-sit year 10 Chemistry and Physics and was already completing past papers and attending revision sessions in March. From a departmental perspective, the school had to decide on grades, justified from year 10 UMS and from their year's work, considering whether they could raise herself 40 marks to another grade boundary, for a pass overall in Double Science. The school decided that it was 'not probable'. They might have succeeded though!]. There are many pupils in a similar situation throughout the UK, with both them and the school unable to know how much their work would have changed their final results. Many pupils admit that their priorities are elsewhere during mock exams and unit tests but maintain that they will work hard for their exams. The school has had several pupils feel that they have worked hard for 5 years to have their final possible achievements taken from them. This pandemic has highlighted substantial problems with basing a curriculum around final exams and teaching to an exam. The school not only misses the final term for all year groups but also the impact for next year. Whenever the school reopens, current year 10 will be behind by at least 2 units as these are taught in the latter part of year 10. The same principle is true for year 12. In years 11 and 13, it is notoriously difficult to complete the course in the time given anyway, as things like coursework and Welsh Baccalaureate take time away from lessons.

School C will also now be further disadvantaged by trying to establish a new 'normal', having staggered reintroductions of classes etc. but still having to finish the next part of each course in even less time, with pupils that have

been through a truly traumatic event with possible emotional (and physical) scars.

Support for pupils and families during closures

In School A, all students are supported through teams and set weekly assignments. Take-up has been slow but is gaining momentum.

Staff from School B have said that working in a school in a deprived area has, as the biggest challenge, getting pupils to engage with work, made worse by some pupils receiving little parental support.
This will have long term impact compared with more affluent areas.
There are a number of pupils without ICT in school so paperwork is being sent home. However, with limited contact, it is hard to know if it is getting completed.

School B has prioritised keeping in contact with the various form classes via e-mail and phone calls, but the focus has mainly been on wellbeing and not academic progress.
The belief here is that more funding needs to go into schools in deprived areas to support 'home learning', providing pupils with ICT and resources in order for them to access work. This pandemic shows now that internet access is essential for pupils.

Support for pupils and families during closures

In School A, all students receive weekly check-ins from their form tutors. Additional checks are made by the CPO and heads of year in conjunction with social services.

The effect on disadvantaged groups

At School C, in an enormous undertaking, free school meals (including weekly food packs) are now delivered to many pupils (those entitled to free meals at school). This is stressful for the few teachers (and volunteers) coordinating distribution for pupils spread out over large distances over greater Swansea (including those at primary school). There is also a team organised to help support and communicate with our vulnerable pupils and with the social service to keep these pupils safe and healthy.

In School A, free school meal provision is a concern as there are over 900 eligible students within the cluster. The school has adopted a 'weekly shop' model where a bag of food to make sandwiches is delivered/collected once a week. This reaches many more students than just the daily sandwiches

The effect that this pandemic will have on disadvantaged pupils should not be underestimated. For some pupils, school is their safe place, somewhere they can go for encouragement, nourishment and care. This has now been taken away and is an additional factor beyond their control. One pupil reported before leaving that s/he was dreading being home for months on end as it was " a toxic place ". This, unfortunately, will be the reality for many pupils at School C. Some have no access to electronic devices and even have no internet access so cannot benefit by borrowing a laptop from school. Many vulnerable pupils will be suffering at the moment. The school has pupils that care for sick and vulnerable family members, taking-on responsibilities despite their young age. They are worried about the virus, worried about loved ones and maybe even trying to cope with the impact of family members that have contracted Covid-19. Falling behind with school work will no doubt add to the anxiety. The school has organised teams to try and cover all the important aspects of home learning and care for our pupils. The senior leadership team are working tirelessly for the welfare of its young people. Communication with parents and pupils has taken place across lots of different platforms, websites, twitter, facebook, hwb teams and letters sent home. It was particularly difficult in the first few weeks as communication from LEA's and government agencies was conflicting. For example, leading up to school closures, the school was told to prepare work for home schooling by Friday 20th March. This was done whilst maintaining teaching. Then, on the Friday, the LEA said to concentrate on school repurposing and coping with critical childcare. Two weeks were then given to prepare home schooling resources. The school was told that pupils would have Easter term brought forward two weeks and that gave time to sort resources. Then, a week into Easter holidays, the school was told that the LEA had told schools to follow the normal school holidays and to stop setting work. Schools appear to be adopting vastly different approaches to home schooling. Some schools are setting daily lessons following a normal timetable, while others use non-curriculum-based challenges and tasks, concentrating on pupil well-being. It is difficult to know what is for the best with widely differing approaches and advice being given out. Whatever happens, work that has been set will have to be revisited when school reopens; some pupils without internet access or that have simply not been able to work will be at a substantial disadvantage.

Impact from a S4 perspective

S4 works specifically with schools from traditionally low participation demographics, and our workshop model relies on long and slow interventions, building several key components.

The pupils taking part in the S4 programme are able to come to our bespoke classroom on the University campus, and become accustomed to the faces of places of science. The workshops are linked to the curriculum and aim to boost pupils' confidence in science, as well as close the STEM gender gap.

The feedback from the teachers have made it clear how problematic it is when vulnerable children cannot access school material. This is relevant for S4 because the programme aims to build-up pupil 'science confidence' but are now having to attempt to do this by releasing only online content, which precludes participants without internet access. Unfortunately, it is precisely these pupils who are most likely to benefit from the S4 programme. The long-term implications for pupils who do not have access to the on-line content are appreciable because this critical section of the cohort will be effectively 'lost'. Beyond this, S4 cannot operate normally in providing a safe scientific environment for pupils to gain hands-on experience of science, which is likely to compromise the benefits of our intervention scheme.