

Briefing for the Petitions Committee

Y Pwyllgor Deisebau | 13 Mawrth 2018

Petitions Committee | 13 March 2018

Research Briefing:

Petition number: **P-05-802**

Petition title: **Protecting Class Sizes in Design and Technology Classrooms and Workshops**

We call on the National Assembly for Wales to urge the Welsh Government to ensure that all schools in Wales fully adopt BS4163:2014 as a requirement as opposed to a recommendation, in order to protect the health and safety of both students, teachers and technicians.

Following networking meetings for Design and Technology teachers within the ERW region, it has become apparent that the financial pressures on schools give rise to a situation where Design and Technology teachers are increasingly being asked to teach classes larger than 20 pupils as recommended in BS4163:2014 "Health and safety for design and technology in educational establishments – Code of Practice". Increased class sizes invariably lead to higher risk of pupils getting injured in workshop environments.

The BS4163:2014 Code of Practice clearly states as follows:

9 Management of the teaching environment

9.1

General

The number of learners in any one work area should be carefully considered to ensure safe working and effective supervision.

In England and Wales, there should be a maximum of 20 learners with one competent, qualified teacher in any one work area.

In Scotland and Northern Ireland, there should be a maximum of 20 pupils for all classes in practical subjects

1. The Welsh Government's view

1.1 The British Standards Institution (BSI) and the Health and Safety Executive (HSE)

The British Standards Institution (BSI) is [a private company incorporated by Royal Charter](#). The [British Standards Institution \(BSI\)](#) is 'recognized as the UK National Standards Body (NSB) by the UK Government'. It acts as the UK's representative on international standards bodies, such as the International Organization for Standardization (ISO). It receives funding from the [UK Government's Department for Business, Innovation & Skills \(BIS\)](#) for this international work.

15% of BSI's revenue, comprising £59.4million in 2016, stems from 'standards development and publishing'. The BSI notes that

More than 95% of the standards we published were the British implementation of European or international standards

As part of that strand of its work, BS4163:2014 "[Health and safety for design and technology in educational establishments – Code of Practice](#)" is not publically available free of charge, but is available to purchase online.

The Welsh Government's letter to the Committee highlights its view of the code of practice, which is

BSI Standards represent the condensed knowledge of a group of people who have experience or expertise regarding a given subject; they are often written voluntarily. The one cited...is a code of practice **which offers advice and guidance**.

The Welsh Government notes that the responsibilities for health and safety in schools is outlined by the [Health and Safety at Work Act 1974](#) and the associated [Management of Health and Safety at Work Regulations 1999](#). Responsibility for health and safety is a not devolved and related regulations are enforced by the Health and Safety Executive (HSE). The Welsh Government reports that expects schools to follow 'guidance on health and safety issued by the HSE'.

The HSE provides guidance on '[sensible health and safety management in schools](#)' online. HSE provides a [health and safety checklist for classrooms](#) as well as other resources. The responsibility for ensuring that the HSE guidance is followed in classes sits with the head teacher, while the governing body has a 'key role in making sure risks are managed effectively on site'.

1.2 Welsh Government Guidance

The Welsh Government notes that it has published [guidance on measuring school capacity](#), last updated in 2011. This guidance is 'intended to provide a robust and consistent method of assessing the capacity of schools'. However, it does not 'prescribe the number of pupils

(or staff) that could use a space for teaching or study’, but provides an overall assessment of available teaching space.

2. The Design and Technology Association campaign

The Design and Technology Association (Data) is

a membership organisation providing advice, support and training for those involved in teaching design, engineering and technology. We work closely with government, awarding bodies, Ofsted and other regulators, advising on the curriculum and lobbying on behalf of the subject.

On 7th October 2015 Data, with the support of the Royal Society of Arts, launched its [Designed and Made in Britain...?](#) campaign. It summarises [the main issues](#) facing design and technology courses as

There is a shortage of qualified teachers; government accountability measures prioritise other subjects; teachers cannot access CPD; and GCSE numbers are declining.

In general Data’s campaign is focused on the UK Government, calling for changes to the English school curriculum and accountability measures. It calls on individuals to write to their local Member of Parliament to lobby them on the issues raised by the campaign, [and to sign its petition](#).

3. Design and Technology teaching in Wales

In summary, the number of teachers trained and teaching design and technology, and related subjects, in Welsh schools has remained stable over the last five years. However there has been a drop in the number of GCSE entries into those subjects in the corresponding period.

Furthermore, while StatsWales [Welsh Government] data does not provide a percentage breakdown of subjects, it is worth noting that there were 258,869 GCSE entries in 2013/14 and 273,805 entries in 2016/17. Entries for craft, design and technology courses have fallen in absolute and relative terms in the last five years (see section 3.2).

3.1 The number of design and technology teachers

The Education Workforce Council produces annual statistics on the teaching workforce in Wales. Its latest update was published in March 2017. Using this statistical digest, the following tables have been produced. It highlights the number of ‘ITET [initial teacher education and training] subject trained’ teachers.

Table 1 - Number of EWC registered secondary teachers in Wales by the ITET trained subject

ITET subject trained	2013	2014	2015	2016	2017
Design & Technology	844 (5.9%)	833 (6%)	878 (5.9%)	872 (5.9%)	855 (5.8%)
Design Studies	275 (1.9%)	268 (1.8%)	268 (1.8%)	255 (1.7%)	240 (1.6%)

The statistical digest also highlights the number of secondary school teachers registered with EWC by subject taught. This data shows the following

Table 2 - Number of EWC registered secondary teachers in Wales by the subject taught

ITET subject taught	2013	2014	2015	2016	2017
Design & Technology	984 (6.2%)	957 (6.0%)	902 (5.9%)	888 (5.8%)	848 (5.7%)
Electronics	20 (0.1%)	21 (0.1%)	17 (0.1%)	19 (0.1%)	17 (0.1%)
Engineering	12 (0.1%)	13 (0.1%)	14 (0.1%)	14 (0.1%)	14 (0.1%)

In Tables 1 and 2, the percentage next to the total number of teachers, highlights the percentage of the overall teaching workforce that figure represents.

3.2 The number of GCSE entries for design and technology GCSEs

StatsWales provides data on [GCSE entries and results \(pupils in Year 11/pupils aged 15\) by subject group](#). Using that data, the following table has been produced.

Table 3 - GCSE entries (pupils in Year 11/pupils aged 15) by subject group

Subject	2013/14	2014/15	2015/16	2016/17
Craft, Design & Technology	8,573	8,029	7,543	6,938
Applied Engineering (VQ)	396	436	515	373

Every effort is made to ensure that the information contained in this briefing is correct at the time of publication. Readers should be aware that these briefings are not necessarily updated or otherwise amended to reflect subsequent changes.