The consequence of school performance measures – inequality of access and opportunity

Abstract

This paper assesses the potential impact of two performance measures on equality of access to a general education for all pupils. It argues that government policy, which on the surface appears to facilitate equality of opportunity, is in fact marginalising some school subjects and appropriate qualifications. Focussing on the subject design and technology (D&T), this paper illustrates the potentially limiting effect of school performance measures on pupils' opportunity for a broad and balanced education.

This paper has four parts. This paper firstly explains two government school performance policies that are the context for the decline, secondly it presents three scenarios where pupils are guided to study certain qualifications, thirdly it proposes how these scenarios might lead to a narrowing of the D&T curriculum content, the final section presents arguments why D&T is an important component of all pupils' education.

D&T is used to illustrate the consequence of school performance measures that is relevant to other marginalised subjects. Therefore, this paper will be of interest to others who represent subjects, such as art and design, drama and music. The five reasons for D&T as part of a general education could be reframed for other subjects.

Introduction

In September 2010 the Department for Education introduced the Ebacc, which was to be both a performance measure and a certificate of achievement for individual students (Education Select Committee 2011). This was followed by a second new measure, Progress 8, which measures an individual pupil's progress in eight subjects. Understandably many school leaders are reacting to these two performance measures by making changes to their school's curriculum, prioritising some subjects over others. These political and school curriculum changes have the potential to affect the opportunities children have to study a range of subjects. Focussing on the subject design and technology (D&T), this paper illustrates the potentially limiting effect of school performance measures on pupils' opportunity for a broad and balanced education.

This paper has four parts. This paper firstly explains two government school performance policies that are the context for the decline, secondly it presents three scenarios where pupils are guided to study certain qualifications, thirdly it proposes how these scenarios might lead to a narrowing of the D&T curriculum content, the final section presents arguments why D&T is an important component of all pupils' education.

Context

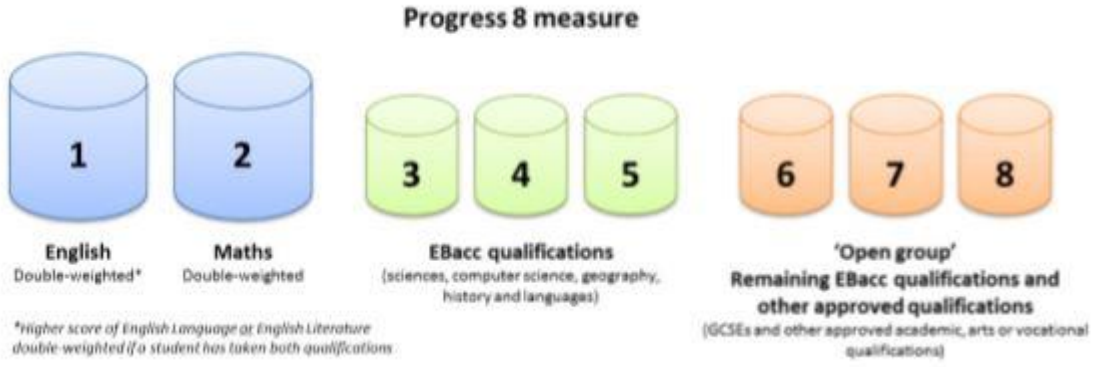
To achieve the Ebacc students need academic qualifications in five of the following subjects: English, mathematics, science, history or science, and a language. Three reasons have been identified as why the Ebacc was introduced (Education Select Committee 2011). Firstly, the government claimed that studying these subjects would narrow the attainment gap between the richest and poorest students. Secondly the Ebacc would give all pupils access to a broad and academic curriculum. The five Ebacc subjects were set out as providing the essential knowledge all pupils need a part of a general education - an education for all. This argument is based on Hirsch (2006) and Young's (2008) views

about cultural literacy and powerful knowledge. Thirdly the government wanted more performance measures and consequently Progress 8 was introduced in 2016.

Whilst the Ebacc measures attainment in five academic subjects, Progress 8 measures an individual pupil's progress in eight subjects, the Ebacc subjects plus three others. The average progress made by all pupils in eight subjects is published enabling comparison between schools. However, schools are restricted in the subjects permitted to be counted in Progress 8.

> 'The new measure will be based on students' progress measured across eight subjects: English; mathematics; three other English Baccalaureate (EBacc) subjects (sciences, computer science, geography, history and languages); and three further subjects, which can be from the range of EBacc subjects, or can be any other approved, high-value arts, academic, or vocational qualification.' (Department for Education 2014, p.1).

The eight subjects are organised into three groups or 'buckets' (figure 1). The first bucket contains English and maths; science, history or geography and a language are in the second bucket. Qualifications permitted in the 'open group' bucket include non-Ebacc GCSEs, such as art and design (A&D), D&T, drama and music, and vocational qualifications such as the new Technical Awards that are 'broad, high quality qualifications that equip students with applied knowledge and associated practical skills *not usually acquired through general education* (author's emphasis)' (Department for Education 2015, p.3). It is the tension between the Ebacc performance measure and the approved qualifications for bucket 3 which some argue is affecting equality of access to a general education for all pupils [ref ATL article].



Potential consequences of the performance measures on one marginalised subject: design and technology

Understandably many school leaders are reacting to these two performance measures by making changes to their school's curriculum, prioritising some non-Ebacc subjects over others. Below are three possible scenarios; they are intentionally extreme, intending to challenge the underlying assumptions being made by schools about the contribution non-Ebacc subjects make to a child's education.

The scenarios focus on D&T, which has seen a significant decline in GCSE entries in recent years (Design and Technology Association 2016). Once Design and Technology (D&T) had the highest number of pupils studying for a GCSE qualification in D&T (GCSEs are qualifications taken by 16 year olds in their final secondary school year), now it is less popular than religious studies, history and

geography (Hardy 2015). There has been a steady decline since 2000, when D&T stopped being a compulsory GCSE subject, but this decline has accelerated in recent years (Design and Technology Association 2016). Other creative art subjects could have been chosen as they are also seeing a decline in pupil numbers (Richens 2016).

In the first scenario high ability pupils are encouraged to study more Ebacc subjects than the minimum five. For example, Jade is already expected to study English, maths, a science, history and French but the school encourage her to study computer science and geography thus filling containers 6 and 7 in figure 1, Jade can choose one additional subject for container 8; she chooses art and design. Consequently, Jade's career and university options are skewed towards more traditional and academic routes; whilst some argue it prepares her for higher education, others claim it narrows her options. In lower secondary school Jade showed potential in D&T, her teachers felt she could have taken her D&T studies on to A level but without GCSE D&T this route is closed to her; over time the D&T department notice that fewer high ability students are opting to study GCSE D&T and therefore A Level D&T.

In the second scenario schools decide those pupils who struggle with the Ebacc subjects would benefit from more lesson time in order to achieve good grades. For example, Kiran finds maths and science difficult and the school personalises their timetable withdrawing them once a fortnight from their non-Ebacc GCSE D&T. Later on in life Kiran wonders if this contributed to them not achieving a good grade in GCSE D&T that meant they weren't able to studying A level D&T.

The third scenario involves schools deciding not to offer a GCSE in creative subjects to all pupils, only those more likely to achieve good grades in the Ebacc subjects. High ability pupils are allowed to study GCSE D&T, others are directed to vocational qualifications, such as the Technical Award in Fashion and Textiles or Materials Technology. Some D&T teachers believe this is right decision; claiming low ability pupils struggle to be creative and are more suited to a practical, craft activities. Larissa is an anomaly thought. She is in lower sets for English, maths and science but is creative – her D&T work is original and innovative, but she is grouped with other pupils from her English, maths and science sets, meaning she cannot study GCSE D&T. Consequently, there is no opportunity for her to develop her design ability within school and the D&T department lose another able pupil.

If these scenarios prevail, where D&T is only taught to a selection of upper secondary pupils, there are two directions the subject might take. For both D&T is no longer recognised as a subject that is essential in a general education. The subject becomes marginalised in every aspect. Pupils have unequal access to D&T education – decisions are being made for them.

In the first the D&T curriculum teaches children to use both emerging and traditional equipment and processes. Pupils who do D&T are equipped for self-sufficiency, running their own home, but they also work in small, local businesses. They may have a career as a technician or be involved in maintenance.

The second direction is a curriculum that focuses on the home, and pupils learn processes needed for the home and family life (reminiscent of the 2013 'make do and mend' D&T curriculum (Department of Education 2013a)). Very little here relates to the emerging technologies that they will see in most of their work places. It equips young people with domestic, practical life skills.

Assumptions about D&T

Implicit in the three scenarios and two directions are several assumptions; D&T is a practical and vocational subject; the subject is more suited to lower ability children; D&T is an unnecessary qualification for any professional career.

The first assumption arises from D&T's history. Previous to the first National Curriculum in 1990, D&T did not exist as a single subject; it is an accumulation of several subjects, such as home economics, CDT (craft, design and technology) and design, which came together in part for self-preservation (Knight 1996) and also in response to the growth of technological innovation (McCulloch, Jenkins and Layton 1985). They had little in common apart from using materials to make products, sometimes in response to a design problem at other times to learn practical skills, including cooking and using hand tools. D&T has struggled to lose this image.

The second assumption has been refuted by evidence from national data showing the underachievement of pupils of all abilities in D&T compared to the same pupils' progress in other subjects (Choulerton 2015).

The third assumption suggests that D&T does not open doors to any career. There is little evidence that D&T is the key holder to any career. McCombie (2016) demonstrated that those who studied Civil Engineering at University of Bath and have A level D&T achieve higher degree awards than those without A level D&T. But one small study does not support a national policy for the inclusion of D&T as part of a general education.

We end where we began - the primary argument for the Ebacc – that access to a broad and balanced academic curriculum is part of the solution to raising the achievement of more pupils. None of the scenarios, routes or assumptions bode well for D&T; it's not academic, its curriculum content is narrow and it's suited to a small group of pupils interested in practical skills pursuing careers in blue-collar employment.

Reasons for D&T in a general education

A dominant belief about teaching and learning in D&T is that it primarily involves children designing and making products, but this is a superficial view of D&T. Eggleston (1976, p.1) and others have long explained that D&T, which includes design education, involves the 'intellectual as well as the practical'. Whilst in D&T pupils do learn practical life skills for use in everyday life – a utilitarian argument for D&T - there are other arguments that support D&T's place in a general education.

A strong economic argument presented by the Design and Technology Association (D&TA) as part of their 'I believe in D&T' campaign is: 'If you turn a thought into a drawing into a car you can give twenty thousand people a job - it's as simple as that'. The Creative Industries are worth more than £87 billion a year to the UK economy (Bacc for the Future 2016). Therefore, D&T is valuable because of the learning of skills and techniques which do open doors to a range of D&T related careers.

The democratic argument for D&T is in the National Curriculum's purpose statement for D&T: 'Through the evaluation of past and present design and technology, pupils develop a critical understanding of its impact on daily life and the wider world.' (Department of Education 2013b, p.192). Today, and in the future, pupils will make decisions. Their capacity to understand and utilise resources are addressed in D&T. Learning about new and emerging materials and technologies will give pupils have a breadth of knowledge about how design and technology impacts on daily life. Being given opportunities to design solutions for 'wicked problems' (Rittel and Webber 1973) they will understand different people's perspectives, which can empower them to become informed citizens.

D&T should be part of a general education because in D&T children 'critique [and] evaluate … products and the work of others' (Department of Education 2013b, p.192), which gives them an understanding and appreciation of cultural achievements. In D&T children are encouraged to examine and question the made world, which in turn helps them understand human beings' development and way of living in the modern world and they become more technologically literate (Dakers 2006).

In D&T children learn about the needs technology meets, or defines, and its potential effects on society in the future. As society is bombarded with new designs, products and technologies being able to understand the effects of these on the wider world and us in the future is increasingly important. In D&T children use lessons from past design developments to create future scenarios, which enables them to consider potential ethical dilemmas arising from new and emerging technologies, such as artificial intelligence or robotics.

These five arguments (utilitarian, economic, democratic, cultural and societal) are only one way of defending the place of D&T and challenging how government policy is indirectly shaping the curriculum.

Conclusion

This paper assesses the potential impact of two performance measures on equality of access to a general education for all pupils. It argues that government policy, which on the surface appears to facilitate equality of opportunity, is in fact marginalising some school subjects and appropriate qualifications. Focussing on one marginalised subject this paper illustrates the potentially limiting effect on pupils' opportunity for a broad and balanced education. It shows how non-Ebacc subjects are being marginalised as a consequence performance measures introduced by the government and their interpretation by schools. Whilst school leaders and teachers are making, what appear to be, pragmatic curriculum decisions they may not be in the best interest of their pupils. I have shown here a potential consequence is that not all children will have access to subjects that equip them to be educated citizens – an aim of the National Curriculum (Department of Education 2013b).

The second part of this paper suggested five reasons why D&T should be taught in schools as part of a general education. Keirl (2007, p.550) reminds us that 'D&T teachers periodically find themselves offering some sort of defence of the subject'; this is also true for other marginalised subjects.

The decision to guide children to either traditional and academic subjects or alternative vocational qualifications means educators are deciding that children do not need, or have a right to, the broad and balanced curriculum advocated for by the government.

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