

Don't know what you've got 'til it's gone? Skills-led qualifications, secondary school attainment and policy choices

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UNDER REVIEW

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Abstract: *In the name of curriculum breadth and raising standards, recent government policy in England has removed a large number of non-academic qualifications from the list of those that secondary schools can count in league tables, discouraging their use. Most of these were vocational qualifications, but they also include skills-led qualifications.*

This paper reports mixed methods research investigating the relationship between mainstream secondary school qualifications in England and a specific, widely used skills-led qualification: the Certificate of Personal Effectiveness (CoPE). Neither academic nor vocational, CoPE requires learners to assemble a portfolio of evidence in response to 'challenges' negotiated with the teacher. It is designed to promote a reflective learning orientation and to develop (and assess) skills that underpin learning and future employability.

We use a combination of regression analysis, pseudo-experiment and qualitative case study. Our research shows that CoPE is associated with improved outcomes in General Certificates of Secondary Education (GCSEs) – the 'mainstream' academic qualifications often regarded as the benchmark for the quality of schools and much of what goes on in them. Thus, we argue that certain reforms designed to raise standards are likely to depress attainment in the very qualifications deemed as core indicators of educational standards.

Keywords: GCSEs, ASDAN, attainment, learning orientations, inequality, standards

1. Introduction

In England, the principal qualification undertaken at the end of compulsory schooling is the General Certificate of Secondary Education (GCSE). GCSEs are subject-based and academically-focused qualifications that have historically combined continuous assessment through coursework with a terminal examination at the age of 16, forming the centrepiece of learning at Key Stage 4 (KS4). GCSEs are viewed as the mainstream pathway and a gateway both to employment and post-compulsory education or training. They are graded on an eight-point scale from A* to G, with a ungraded fail and grades A* to C generally being viewed as 'good passes'.

However, there has long been freedom for schools to provide other qualifications alongside GCSEs. These qualifications have tended to be vocational and focused primarily on access to employment. Among the more common are those offered by the Business and Technology Education Council (BTECs). A mapping process has allowed many of these qualifications to be counted, both for statistical and personal purposes, as corresponding to a given number of GCSEs at a given grade level, with these qualifications being dubbed as 'GCSE equivalents'. They blossomed in number and scope from the early 2000s, with many schools offering a portfolio alongside a traditional GCSE curriculum.

Included among these GCSE equivalents has been a small group of qualifications that fit neither the academic nor the vocational mould. These offer a skills-led curriculum that seeks to provide learners with a set of competencies that underpin both their current learning and future employability. One such qualification is the Certificate of Personal Effectiveness (CoPE). However, in 2011, the Government announced that the number of GCSE equivalents would be radically scaled back from 2014 onwards, with the majority (including CoPE) losing all status and others being downgraded.

This paper reports the findings of a mixed-methods study blending large-scale national secondary data with qualitative data collected from learners and staff at four typical schools offering CoPE. It explores the relationship between CoPE, learning orientations and attainment, finding evidence that the pursuit of CoPE is associated with improved GCSE results. It concludes with a discussion of the implications of this finding in the context of the recent policy changes.

2. What is CoPE?

CoPE was devised, and is overseen, by ASDAN (the Award Scheme Development and Accreditation Network) – a charity with its origins in teacher collaboration on curriculum development in the 1980s (Crombie White, 1996). It is now an awarding body offering a portfolio of school-level qualifications, based largely around transferable skills and employability. To some extent, there is an ASDAN 'approach' with anchorage in educational theory that might be termed progressive and constructivist, developed at a

time when a significant strand of the 'new sociology of education' argued that the 'best way of producing working class success was to substitute an alternative curriculum that was closer to the experience of working class children' (Whitty, 2010, p.29). Indeed, ASDAN programmes have been well-regarded for their capacity to promote learning, engagement and achievement (James & Simmons, 2007; Raphael Reed *et al*, 2007), and nationally recognised for 'exemplary contemporary practice' (Pring *et al*, 2009, p.82; Tomlinson, 2004) in their approach to educating learners in a broad sense, including wider skills and personal qualities.

CoPE was introduced in 2004 and is undertaken by around 20,000 learners each year. At KS4, it is available at Level 1 (previously equivalent to a grade E at GCSE) and Level 2 (previously equivalent to a grade B) within the National Qualifications Framework. Roughly equal numbers of learners pursue the two variants, though here we concentrate on the latter and all further references to CoPE in this paper are to the Level 2 variant.

As suggested by its name, the focus of CoPE is on providing learners with a structure and a process to develop a range of values, practices and dispositions that are intended to underpin personal success – both in and beyond school. As such, it embeds the acquisition of a collection of skills that have been variously described over the last two decades as *key*, *core*, *generic* or *transferable*, including communication, problem-solving, working with others, functional numeracy and undertaking research (Unwin, 2010). However, it also incorporates elements of self-reflection and softer attributes such as taking responsibility and managing one's own learning, therefore articulating closely with the 'Personal, Learning and Thinking Skills' as laid out in the 2007 iteration of the National Curriculum. These were considered to be a vital underpinning to support learners to 'become successful learners, confident individuals and responsible citizens' and 'essential to success in learning, life and work' (Qualifications and Curriculum Authority [QCA] 2007, p.1). CoPE therefore sits within the tradition of equipping learners for transition into adult life, although it is important to stress that it is not explicitly intended to provide skills for employment, but a general foundation that could equally underpin success in post-compulsory education or training. It is not, therefore, 'vocational' in the widely understood meaning of the word.

CoPE uses a modular structure with significant flexibility over content and is assessed through a portfolio of evidence accumulated through a series of 'challenges' that are defined by the teacher, often in negotiation with the learner and sometimes focused on their interests beyond school. The portfolio is externally moderated by a network of teachers who have undergone specific training to ensure standards and comparability. It is constructed around a 'plan-do-review' pedagogy that seeks to develop a reflexivity and awareness of personal development among learners, as well as an ongoing feedback loop between teacher and learner. The design and practice of CoPE, and in particular its reliance on the 'plan-do-review' approach, make at least plausible its claim that it positively develops a learning orientation, which the research evidence suggests is pivotal in enhancing performance. As Watkins notes:

'Effectiveness as a learner hinges on the ability to be versatile as a learner, to have a rich view of learning and a learning orientation which is in turn linked to the ability to plan, monitor and review one's learning' (Watkins, 2010, p.7)

While this paper focuses specifically on CoPE, the findings and implications are likely to apply more widely to other skills-led qualifications at KS4. For example, programmes sharing aspects with CoPE are currently offered by the EDEXCEL, OCR and AQA awarding bodies.

3. Policy shifts and the 'bonfire of the vocationals'

Two features of the policy context are of particular relevance to this discussion. The first is the extent to which educational policy reflects a set of shared or collectively recognised aims or purposes, whilst the second is the more specific issue of how GCSE equivalents are viewed and how their value and legitimacy has been changing.

3.1 Educational purposes

For many commentators, we have reached a point at which the purposes of education have become distorted or confused, and many of the processes of schooling are of questionable educational value in a democracy (e.g. Fielding & Moss, 2011; Coffield & Williamson, 2012; Pring *et al*, 2009). A recent meta-analysis of over 100 international classroom-based research studies concluded that

'learning-centred school improvement ... remains in tension with the dominant discourse about classroom learning and with the current policy interventions in England' (Institute of Education [IoE], 2010, p.1).

Related work argues that rather than being learning-oriented, schooling is increasingly performance- and goal-focused as learners progress through the years. Furthermore:

'[As] educational institutions become more selective and the culture becomes more performance oriented, high learning orientation remains central to achievement, but it is not supported by the classroom culture. So a more limited group of students than could be the case are those who will succeed. If performance orientation is dominant in the culture without a developed learning orientation, there is an increase in strategic behaviour rather than learning behaviour, a focus on looking good rather than learning well, and a tendency to perceive education as a process of jumping through hoops, rather than something more transferable and lasting. This is not a strategy for success' (Watkins, 2010, p.5).

Watkins argues that in the current policy climate, it is increasingly difficult for schools and

those that spend time in them 'to recognise that passing tests is not the goal of education, but a by-product of effective learning' (IoE, 2010, p.2).

In signalling this problem, he draws attention to a much broader one, namely that a narrower technocratic view of purpose is now widespread, and compliance with it is secured by a fear of falling (or of not being seen to climb) on the part of teachers, schools and local authorities. The current climate of 'high-stakes testing' applies to educators as much as to learners, with funding, autonomy and promotion all being predicated to a degree on school and teacher performance (West, 2010).

The measure that has come to dominate perceptions of the nature and quality of secondary schooling is the proportion of the relevant cohorts that achieve five or more 'good' passes at GCSE. This is sometimes referred to as the 'Level 2 threshold'. This measure was augmented from 2006 to provide a second, more restricted indicator, regarded by some as having greater validity, namely five 'good' GCSEs *including English and Mathematics* (sometimes called the 'Level 2+ threshold'). Given the history of these public examinations and their forerunners, the use of such figures as an indicator of the quality of what a school offers *all* its learners is, at best, naive (for a good, evidence-based discussion of the development of these public examinations since the 1950s and of the remarkable changes over time in assumptions about the ability ranges they encompass, see Torrance, 2009). Nevertheless, the assumption is now widespread that this indicator provides *the* benchmark for parents and others when comparing secondary schools, teachers, cohorts of pupils, and the leadership qualities of headteachers, though some groups of middle class parents do treat it as mythical and consciously exclude it from their choice-making (see Reay, Crozier & James, 2011).

The continuing dominance of this particular measure may be due to its utility in managing school-level (and to some extent, headteacher- and teacher-level) performance and its role in contributing apparently solid data to official assessments of school quality (West, 2010); however, we should also note its affinity with the promotion of quasi-markets and competition, and its apparent fit with certain economic models and human capital theory. In short, there is a widespread assumption that the indicator is a proxy for a major part of the skills supply in 'UK plc', and furthermore, that it is highly causal in the economic competitiveness or productivity of 'UK plc'. As Stephen Ball noted in 2008:

'[T]he social and economic purposes of education have been collapsed into a single, overriding emphasis on policy making for economic competitiveness and an increasing neglect of sidelining (other than rhetoric) of the social purposes of education' (Ball, 2008, pp.11-12).

This focus is perhaps most apparent in the 2006 Leitch Review, which argued that a step-change in skill development would bring about a reversal in the decline of the UK economy relative to other comparable economies (Leitch, 2006). Nevertheless, the idea that the UK can regain ground in international competition by nurturing a 'knowledge economy' is

highly questionable when knowledge-work itself is increasingly global (see for example Brown, Lauder & Ashton, 2011).

A similar view of education for economic competitiveness also underpins dominant perception and usage of the outcomes of cross-national studies of the achievements of pupils, such as the Programme for International Student Achievement (PISA), Trends in Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS). The UK is generally portrayed by journalists and politicians as slipping downward in comparison to OECD competitors (e.g. Shepherd, 2010; Garner, 2013), with inevitable 'moral panics' (Alexander, 2012) around national economic decline. The remedy for this is seen as school reform based on emulating isolated aspects of the national educational systems in those countries with higher scores, especially Finland and East Asian nations. This 'common sense' reading is highly problematic: for example, research on mathematics scores strongly suggests that recent reforms of UK secondary education are a misplaced response and that earlier intervention would be much more productive (Jerrim and Choi, 2014). Such work adds to a growing list of evidence-based critique of PISA/TIMSS/PIRLS, questioning their methods and showing that their apparent significance runs well ahead of what they can support with validity (see for example Goldstein, 2004; Jerrim, 2011; and see TES, 2013). Indeed, Sahlberg argues that the root of Finnish educational success is that

'[e]ducation policies to raise student achievement ... put a strong accent on teaching and learning by encouraging schools to craft optimal learning environments and establish instructional content that would best help students to reach the general goals of schooling' (2007, p. 167).

Such 'optimal learning environments', he argues, eschew high-stakes testing whilst integrating learners' interests into school life and promoting bottom-up developments and interschool collaborations. Furthermore, he extols the virtues of a wider conceptualisation of the aims of schooling in terms of the happiness of learners and the skills and orientations that they develop. In his critical reflections on policy responses to PISA data, Elliot (2014) argues that it is culturally-grounded differences in academic engagement and motivation that explain international rankings, rather than national education systems; this is supported by Feniger & Lefstein's (in press) analysis of migrants between national systems. More generally, Griffiths (2012) argues for an important role for joy and discovery within education, which may be compromised by high-stakes testing and concomitant anxiety.

These analyses are clearly at odds with the dominant policy discourse in the UK, with its focus on standards-driven testing, interschool competition and a top-down, highly-regulated curriculum. Lupton and Hempel-Jorgensen (2012) argue that this policy is particularly problematic for schools serving deprived areas, where the additional challenges (and concomitant costs) lead schools to default to 'safe' forms of pedagogy and a strongly framed curriculum rather than more creative and respectful approaches that

would benefit disadvantaged learners. Indeed, a recent parliamentary report concluded that '[a] variety of classroom practices aimed at improving test results has distorted the education of some children which may leave them unprepared for higher education and employment' (UK Parliament, 2008). West (2010) reports that English children have some of the lowest levels of school engagement and happiness.

3.2 The rise and fall of GCSE equivalents

In the early part of the 2000s, the drive to 'up-skill' (or often, in the spheres of work-based learning, National Vocational Qualifications, and adult literacy and numeracy, merely 'up-qualify' – see Wolf and Jenkins, in press, in respect of the latter), together with the increasing use of league tables to compare schools, boosted the demand for flexible alternatives to GCSE which could be regarded as equivalent. The then Labour Government was simultaneously promoting 'breadth through choice' and the progressive relaxation of the curriculum at KS4 (Golden *et al*, 2006).

This liberalisation of the KS4 curriculum was seized with gusto by awarding bodies, schools and learners alike. The vast majority of these new qualifications emerging were vocational in nature, with a heavy emphasis on coursework. Many were deemed to be equivalent to multiple GCSEs, such that it was possible for learners to meet even the tighter threshold with actual GCSEs only in English and mathematics, with equivalents making up the remainder. The recognition in headline measures (and therefore, league tables) of GCSE equivalents made them very attractive to headteachers, local authorities, governors and others who saw (and continue to see) the maximisation of publicly-visible outcomes as paramount.

Over the 2000s, GCSE equivalents came to account for an ever greater proportion of the headline figures, as can be seen in Figure 1. In fact, while the period did see a growth in actual GCSE results, most of the much-lauded improvements actually came through equivalent qualifications. In particular, a pattern emerged where GCSE equivalents were disproportionately undertaken by disadvantaged young people, those with lower prior attainment and those expecting early entry into the labour market, while actual GCSEs were focused on those expecting to progress into post-compulsory (and higher) education (Golden *et al*, 2006; Gorard, 2012; Hodgson & Spours, 2014).

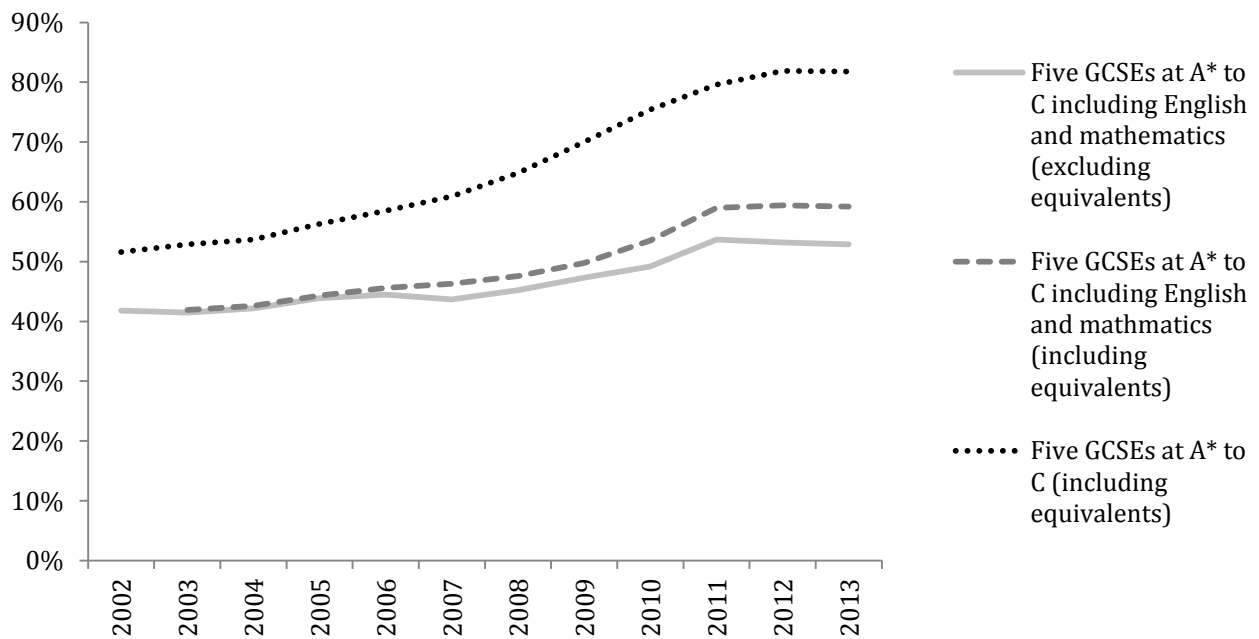


Figure 1: GCSE pass rate thresholds for England from 2002 to 2013 (Source: Department for Education, also see Heath et al, 2013)

By the late 2000s, some commentators were beginning to question the rigour of GCSE equivalents, linking their growth to perceived issues of standards and the suggestion that schools were using them to ‘game’ league tables for their own ends, while providing children with substandard opportunities to succeed (de Waal, 2009; Wrigley, 2011). Whilst some pointed to wider value in terms of engagement and remaining in education beyond the age of 16 (Hodgson & Spours, 2014), considerable pressure had built up, leading to the incoming Coalition Government in 2010 commissioning Alison Wolf to review vocational education. Her report was damning in its conclusions:

‘[T]he Review found conclusive evidence of serious problems in current provision: problems which impact directly on young people and their futures. Large numbers of young people are not on programmes which will help them to progress either educationally or in the labour market... At a time of rising youth unemployment across Europe, ever greater competitive pressures on our economy, and rising demands for formal qualifications, *too many of our young people are being short-changed.*’ (Wolf, 2011, p. 44, emphasis in original).

In response, the Government announced that, from 2014, the vast majority of GCSE equivalents would no longer be included in headline performance measures or would have their equivalency downgraded, reducing the number of counting qualifications from 3,175 to just 125 (Department for Education, 2012). This ‘bonfire of the vocationals’ was indicative of a strong contemporary policy direction, clearly visible both in the government response to the Wolf Review and in the introduction of the English

Baccalaureate¹. Despite not being a 'vocational' qualification, CoPE was amongst those qualifications to be removed from headline performance measures.

We have therefore seen a radical shift in policy in just ten years. Firstly, in the early 2000s, there was an active encouragement for diversity of KS4 qualifications, with an increased emphasis on *key, core* and *personal* skills and on employability for global competitiveness (Unwin, 2012). Then, by the early 2010s, this breadth was itself seen as problematic and as responsible for a slipping of standards, with serious implications for the UK's international standing. Accompanying this, and despite difficulties of distinction between the vocational and academic (Pring *et al*, 2009; Doyle, 2012), was a re-assertion that a specified range of academic subject-based examinations represented legitimate and high standards. The principal argument justifying this shift insists that subject-based examinations represent a more powerful form of knowledge, and that access to this knowledge is crucial for working class children whose backgrounds may not provide it of their own accord (Young, 2008; and see Whitty, 2010, for an account of this position in relation to shifts in sociological perspectives). However, a critical perspective might see this shift as representing a re-establishment of an earlier form of educational differentiation, or inequality (Hodgson & Spours, 2014).

4. Methodology

Given that CoPE is one of the qualifications to have seen its fortunes change in this policy landscape, this paper seeks to explore the relationship between CoPE and GCSE outcomes, built around three main research questions:

1. Is pursuing CoPE associated with significantly different attainment in the GCSEs undertaken at the same time?
2. Are there groups for which any such relationship was particularly strong, absent or reversed?
3. By what mechanisms might these relationships operate?

The research approach used in this study was purposively mixed methods, which Johnson & Onwuegbuzie (2004, p.17) define as 'where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study.' They argue that mixed methods research bridges a gap between positivism and interpretivism with a pragmatic approach to enquiry that makes use of the most effective blend of methods for addressing the research questions (also see Gorard, 2004). Among its advantages, Johnson & Onwuegbuzie (2004) cite its ability to generate stronger evidence and additional insights, to overcome methodological weaknesses, and to make it easier for findings to be generalised. There is not the space here to engage with some of the stronger claims made by advocates of mixed methods, such as the claim that it constitutes a 'third paradigm' (see for example Torrance, 2011, 2012). Nevertheless, a mixed methods approach was particularly attractive in the context

of this study. With something as complex and situated as an educational process, even the most comprehensive and reliable national data on outcomes or learners' profiles will only give us particular kinds of knowledge. Similarly, more intimate qualitative data, if it has richness and depth, will be limited to relatively few sites, and whilst this does not always rule out all forms of generalisation (e.g. Flyvbjerg, 2006) or indeed representativity at the level of social relations (e.g. Bertaux, 1981), it often leaves question-marks over typicality. With this study, our wish was firstly to look *quantitatively* at whether or not there was a statistically significant link between CoPE and GCSE outcomes, and secondly, if there was such a link, to try to understand *qualitatively* the likely mechanisms involved. In particular, we wanted to see if the practices and experiences we could sample were suggestive of any potentially causal relationships. This form of triangulation lies at the heart of mixed methods research, and supports the development of a coherent claim to knowledge, integrating both a tested relationship and plausible routes for causality.

The quantitative and qualitative components of the study were in an iterative relationship, such that the early findings from one strand were able to influence further data collection and analysis within the other strand, and *vice versa* (Leech & Onwuegbuzie, 2009). For example, early findings from the quantitative analysis were used to shape lines of questioning during the visits to schools. Similarly, it became readily apparent from these research visits that there were differing means of implementing CoPE. This distinction could then be represented in the quantitative analysis by means of a proxy variable, which proved to play a key role in the analysis reported herein; this is explained in more detail below.

4.1 Method and process

The study had three main components. The first and largest of these was a *multi-level binary logistic regression analysis* (Hox 2010; Heck, Thomas & Tabata 2012) performed on selected variables drawn from the cohort completing KS4 in 2010 within the National Pupil Database (NPD). This is official secondary data compiled by the Department for Education, covering English schools and made available in an anonymised form to researchers on request. Learners attending independent and specialist schools were removed from the dataset, leaving 504,107 individuals with sufficiently complete records to permit analysis. Of these, 8,896 learners had undertaken CoPE at Level 2, comprising 1.8 percent of the total and spread across 629 schools.

This technique offers the ability to simultaneously isolate the individual effect of multiple explanatory variables on a dichotomous outcome variable. The explanatory variables can be defined at either the individual level (i.e. relating to one learner) or at an aggregate level across a group of individuals; in this study, the school. The outcome variables used in this study reflect whether an individual reached a certain threshold of attainment in their GCSE examinations and will be detailed shortly. In other words, the regression models

constructed in this study reveal which of the factors isolated from the database have a statistically significant relationship with GCSE outcomes; the 5 percent significance level was used throughout.

The second component comprised a *retrospective pseudo-experimental study* constructed by randomly matching 3,557 of the learners who completed CoPE with an equal number of individuals who were ostensibly identical to them across nine variables, but who were in a school that did not offer CoPE. These variables echoed those used in the regression analysis and effectively created two 'imagined schools' of the same size with an identical cohort across a range of educational and social indicators, distinguished only in that all learners in one 'school' undertook CoPE, but none in the other.

This technique offers a complementary quantitative approach to the regression analysis and provides us with an opportunity for robust comparisons of 'control' and 'experimental' groups. In our view, this provides greater rigour than a randomised controlled trial could achieve, because there can be no bias derived from participation in a research experiment, as the 'participants' were obviously ignorant of the analysis that would later be performed. Through this method, the unique contribution of CoPE can be isolated and presented in a more accessible form than regression analysis. In particular, GCSE pass rates for the two 'schools' can be calculated and compared.

The third component consisted of research visits to four example schools offering CoPE. These were pragmatically selected on the basis of geographical spread, diversity of ability range, a well-embedded CoPE programme and willingness to participate. They were intended to be broadly typical of schools offering CoPE, but could not, of course, be assumed to be representative. Each visit comprised meetings with learners, the teacher(s) with primary responsibility for delivering CoPE and a member of the senior management team (usually the deputy head with responsibility for the curriculum). Data collection from learners took the form of two focus groups comprising 4 to 8 learners, one group who were undertaking CoPE and one not. These lasted around 20-30 minutes and were audio recorded (with one exception where written notes were taken instead). Data collection from staff took place in the context of individual or two-person semi-structured interviews that lasted 30-45 minutes and were audio recorded.

4.2 Variables in the quantitative analysis

Two categorical outcome variables drawn directly from the NPD were selected as the principal focus of the study:

- Whether the individual passed GCSE English at grades A* to C (henceforth referred to as 'a good pass in English');

- Whether the individual passed five GCSEs at grades A* to C including English and mathematics, but excluding equivalent qualifications (henceforth referred to as 'five good GCSEs').

A particular focus on GCSE English was justified on the grounds that it is widely regarded as more important than most other subjects. In addition, it could be argued that if there was a connection between CoPE and mainstream subjects it would be likely to be visible in GCSE English where the grade achieved might reflect a level of confidence with written and spoken language. The five GCSE measure was chosen due to the privileged status that it holds in terms of school league tables and perceptions of quality, as well as its strong connection to progression into post-compulsory education (e.g. Croll 2009).

Nine potential individual-level explanatory variables were isolated from the NPD and used in one or more of the analyses:

- Attainment in English at Key Stage 3 [ordinal: Levels 2 (and below) to 7];
- Attainment in mathematics at Key Stage 3 [ordinal: Levels 2 (and below) to 8];
- Gender [categorical: male/female];
- Ethnicity [categorical: white/black and minority ethnic [BME] group/unknown];
- Whether the individual had special educational needs [categorical: yes/no];
- Whether the individual was in receipt of free school meals [categorical: yes/no];
- Whether the individual had English as an additional language [categorical: yes/no];
- Whether the individual was defined as a 'persistent absentee' (missing more than 20 percent of classes) during Key Stage 3 [categorical: yes/no];
- Whether the individual lived in a neighbourhood in the lowest quintile of the 2010 Income Deprivation Affecting Children Index (Department for Communities and Local Government (2011) [categorical: yes/no].

Two school-level explanatory variables were derived from the NPD, providing :

- The percentage of the school cohort achieving GCSEs at grades A* to C in both English and Mathematics [continuous];
- The percentage of the school cohort living in a deprived neighbourhood, as defined through the Income Deprivation Affecting Children Index [continuous].

The final individual-level variable arose from the qualitative data collected from the four schools that were visited. The research team quickly appreciated that there were two broad approaches to the provision of CoPE within schools, which were subsequently labelled as 'thin' and 'wide':

- **'Thin' provision** – where CoPE was used mainly as a supplement for a relatively small minority with disrupted education, particularly between KS3 and KS4 – e.g. illness, absenteeism, family problems, disengagement or behavioural issues. In

these schools, most learners pursuing CoPE were expected to seriously underperform in their GCSEs relative to their ability as a result of the disruption they had undergone or were still undergoing. Sixty percent of those undertaking CoPE did so in a 'thin' school.

- **'Wide' provision** – where CoPE was used as a more mainstream tool with a larger minority or majority of the cohort to enhance the curriculum, increase motivation or broaden opportunities for achievement. In these schools, learners pursuing CoPE were not generally expected to underperform, although the cohort did contain some learners similar to those within 'thin' schools. Forty percent of those undertaking CoPE did so in a 'wide' school.

Exploration of the NPD dataset suggested that the boundary between 'thin' and 'wide' provision schools was broadly defined by whether more or less than 25 percent of the cohort pursued CoPE, and this threshold was adopted as a proxy for the purposes of analysis; it is accepted that there are limitations to this as a means of reflecting differences in school practices. This was then combined with the data on whether an individual had completed CoPE to produce a compound categorical variable with five possible values. A learner could be:

- In a school where CoPE was not offered;
- Undertaking CoPE in a 'thin' school;
- Not undertaking CoPE in a 'thin' school;
- Undertaking CoPE in a 'wide' school;
- Not undertaking CoPE in a 'wide' school.

Within the 'imagined schools' component of the study, the experimental group comprised those undertaking CoPE in a 'wide' school and the control group was randomly matched from those schools where CoPE was not offered. The pairs were matched across nine variables: KS3 English attainment, KS3 mathematics attainment, gender, ethnicity, English as an additional language, special educational needs, free school meals, living in a deprived neighbourhood and persistent absenteeism in KS3.

5. Key findings

5.1 *The relationship between CoPE and GCSE outcomes*

In addressing the first research question, we turn first to the pseudo-experimental study with its 3,557 randomly-matched pairs. Table 1 shows the differences in pass rate between the two 'imagined schools' for GCSE English and Table 2 repeats this for the five good GCSEs measure.

As can be seen, the CoPE 'school' had a higher 'good' pass rate than the non-CoPE 'school' for both GCSE English (by 4.2 percent) and the five GCSE measure (by 3.0 percent). In both cases, the difference is statistically significant (GCSE English: $\chi^2_1=14.498$, $p<.001$ – five good GCSEs: $\chi^2_1=6.136$, $p=.013$). Given the matching process, it would appear that differences in the GCSE outcomes can reasonably be assigned to the pursuit of CoPE as the major non-random distinguishing factor between the two 'schools'.

This is supported by the findings of logistic regression analysis, working with the full sample of 504,107 individuals. Table 3 presents the results of the regression model for good GCSE English passes – an outcome achieved by 69.3 percent of learners. As can be seen, all ten explanatory variables were significantly associated with the outcome variable.

Most importantly, we find that there is a significant relationship between CoPE and the GCSE English outcome once the other variables have been controlled for. Specifically, undertaking CoPE in a 'wide' school is associated with an odds ratio of 1.491 relative to being in a school not offering CoPE. This translated (through Zhang and Yu's (1988) adjustment²) to these individuals, *ceteris paribus*, being an average of 11.2 percent more likely to achieve a good pass at GCSE English than an otherwise similar individual in a school not offering CoPE. Conversely, those undertaking CoPE in a 'thin' school were only 73.7 percent as likely to reach this threshold. We will return to this apparently paradoxical finding shortly.

We also note that in terms of likelihood of achieving a good English pass, it was not relevant whether learners *not* taking CoPE were in a 'thin' school, a 'wide' school or a school that did not offer CoPE. This is important because it strongly suggests that the 'wide' and 'thin' labels related only to the method of delivering CoPE and not to broader school attributes, once other variables had been taken into account. Again, we will discuss the implications of this shortly.

More generally, the regression model shows a very strong relationship, as might be expected, between KS3 attainment in English and GCSE English outcomes. Young women, learners from black and minority ethnic communities and those with English as an additional language also had a higher likelihood of a good GCSE English pass. Conversely, those individuals with special educational needs, those receiving free school meals and those who were persistently absent at KS3 had lower chances of doing so, once other variables were controlled for.

While the two school-level variables were statistically significant, the effect size associated with this relationship was small. The deprivation of the area served by the school had a counter-intuitively positive effect once other variables were factored in, but this was not a major determinant of GCSE English outcomes. Also, learners in schools with good GCSE outcomes overall were more likely to achieve a good GCSE English pass.

Table 4 presents the results of the regression model for achieving five good GCSE passes; importantly, note that CoPE is not included in the outcome measure, which was achieved by 57.8 percent of learners.

The basic pattern of relationships is broadly similar to that for GCSE English, with the same predictor variables (with the addition of KS3 mathematics attainment) and direction of effect. The lack of difference between 'thin' schools, 'wide' schools and schools not offering CoPE also holds true for the results in Table 4.

Most importantly, undertaking CoPE within the context of a 'wide' school was once again associated with a significantly higher likelihood of achieving the five good GCSE passes compared to an otherwise similar individual in a school not offering CoPE. In this instance, the increased likelihood is estimated at 18.6 percent, while those individuals undertaking CoPE in a 'thin' school were only 80.6 percent as likely to achieve five good GCSE passes.

In summary, in relation to the first research question, we find that there is strong evidence, triangulated across two of the components of the study, that undertaking CoPE in a mainstreamed context is associated with significantly improved outcomes in GCSE English and an increased likelihood of achieving five good GCSEs.

5.2 Specific groups and the strength of the CoPE/GCSE relationship

Moving on to the second research question, we return to the findings from the pseudo-experimental study to examine whether there are particular groups of learners for whom CoPE would appear to be particularly efficacious in improving GCSE outcomes.

For each of the explanatory variables, a new crosstab χ^2 analysis was prepared and these are summarised in Tables 5 and 6.

Across all but one of the subgroups, the CoPE 'school' had a higher pass rate than the non-CoPE 'school'. In nearly all instances for a good pass in English, this was statistically significant; the picture was more mixed for the five good GCSEs measure, reflecting the smaller overall effect size for this outcome.

There was good evidence to suggest that the impact of CoPE was greater for those from BME communities (9.5 percent difference in pass rates), those with lower attainment at KS3 (9.4 percent), those with English as an additional language (9.0 percent), those receiving free school meals (6.7 percent) and those with special educational needs (6.4 percent). There was also some evidence for a higher effect size for persistent KS3 absentees, but the sample size was too small for this to achieve significance. Of particular note is the inferred effect of CoPE on those with below average attainment at KS3. For this group, the pass rate is nearly doubled at 21.3 percent for those in the CoPE 'school' compared to 11.9 percent for those in the non-CoPE 'school'.

Turning to the achievement of five good GCSE passes, similar trends emerge. Effect sizes are larger-than-average for those with English as an additional language (8.0 percent) and those receiving free school meals (5.9 percent). Perhaps counter-intuitively, they are also larger for those with high attainment in mathematics at KS3 (5.8 percent). There was also evidence for a higher effect size for persistent KS3 absentees and those from BME communities, but these did not achieve significance.

In summary, in relation to the second research question, there is good evidence from the pseudo-experimental study for different impacts from pursuing CoPE among different subgroups of learners. This was particularly strong for GCSE English, although similar patterns were found for the five good GCSEs measure. Most notably, there is a marked relationship between the impact of CoPE and groups in educational disadvantage, including those not having English as a first language, those with special educational needs and those from poorer households. However, a positive relationship also exists for the higher ability ranges and for those learners with other forms of relative educational advantage.

5.3 Plausible mechanisms

We turn now to the third research question, exploring the possible mechanisms by which the statistical associations between CoPE and GCSE results might occur. Whilst these associations do not of course provide conclusive proof of cause-and-effect, we are not confined to mere conjecture: our qualitative data does interact with the quantitative analysis in ways that enable us to suggest plausible mechanisms.

Of course, it is possible that these associations are attributable to another confounding variable beyond those used in the analysis. Yet while the school-level variables available to us can only provide a partial account of the school environment, they do appear to rule out potential explanations based on CoPE being offered by certain types of school – e.g. those with a culture of high attainment or those in less deprived areas. Nevertheless, there may be a factor that is related to, but separate from, CoPE that has remained invisible and which could account for some or all of the effects described above. One justification for this study's mixed methods design was to see whether qualitative data on practices and experiences would offer insights about the nature of any relationships that emerge from the statistical analysis. However, these data did not suggest any additional factors, aside from the difference between 'thin' and 'wide' provision, as detailed above and discussed below; three of the schools visited were 'thin' and one 'wide'.

Like many other schools, the main reason that the four case study schools had begun to offer CoPE was its official recognition in 'headline' measures of KS4 attainment. This 'extrinsic' motivation was, however, usually preceded (and continued to be accompanied) by an 'intrinsic' valuing of the specific curricular and pedagogic features of CoPE, such as

the modular structure, the 'plan-do-review' sequence, the harnessing of pupil interests and the diversity of accepted forms of recording of activity and learning that it encompasses. As one teacher, responsible for the provision, put it:

'When we started with CoPE we were just looking to increase our five A* to C, but now we are at 92% A* to C we do it because it is a good course.'

In all four schools, staff were clear that an advantage of CoPE was that it enabled some students to attain good GCSE passes who would be unlikely to do so without it. In one school, a senior manager described how they had a number of students who were predicted to attain at least a grade C in both English and Mathematics GCSEs, but who were unlikely to achieve three more passes of C and above to make up the required five of the 'threshold': CoPE was the device through which the school sought to avoid what he termed this 'dangerous situation', and it was used here as a vehicle for focused work that would yield a GCSE equivalent in its own right whilst supporting the student across their other examined subjects. The other three case study schools were less apparently instrumental in this sense, but in all of them staff commented at length on the range of skills that students were able to develop within CoPE, and on what they saw as a positive impact on the rest of the students' school work. For one senior member of staff, CoPE was, in addition, vital for progression and success at the next level:

'We find that those that are doing CoPE when they get into the sixth form are much better at researching and project work or even just better at formatting and laying out a page and making it look presentable'.

Our student interviewees were not chosen at random, with school staff arranging the focus groups. With this in mind, we were nevertheless struck by how unremittingly positive the learners were about CoPE in contrast to other areas of school life (about which they were often highly critical). Amongst its most celebrated features were: its clear relevance to life beyond the school gates (a relevance many students found it hard to see in their 'mainstream' schooling); its developing of skills that were useful in other areas of schoolwork; the lack of examinations; a sense of achievement and enjoyment in learning. Such views were underscored by staff experiences:

'We had a Year 11 parents' evening quite recently, and a young man was sitting in there with his father. His father said "When this [CoPE] started in Year 9, I thought this is going to be a waste of time, just keeping him busy". But he came along [to the parents' evening] and said "I have to apologise to you because I think this course has done a huge amount for my son in terms of confidence and the way he is progressing with other subjects in school."'

All staff interviewed who were closely involved in CoPE thought there was a beneficial link between the pursuit of CoPE and student engagement, attendance, motivation and confidence, and only varied slightly in how certain they were of these effects. Several staff

gave example after example of learners whose relationship to (and achievement within) school had changed after they became involved in CoPE. Taken together, our qualitative data strongly suggests that CoPE has an impact on GCSE outcomes in one of three ways, although these overlap and are not mutually exclusive (Figure 2).

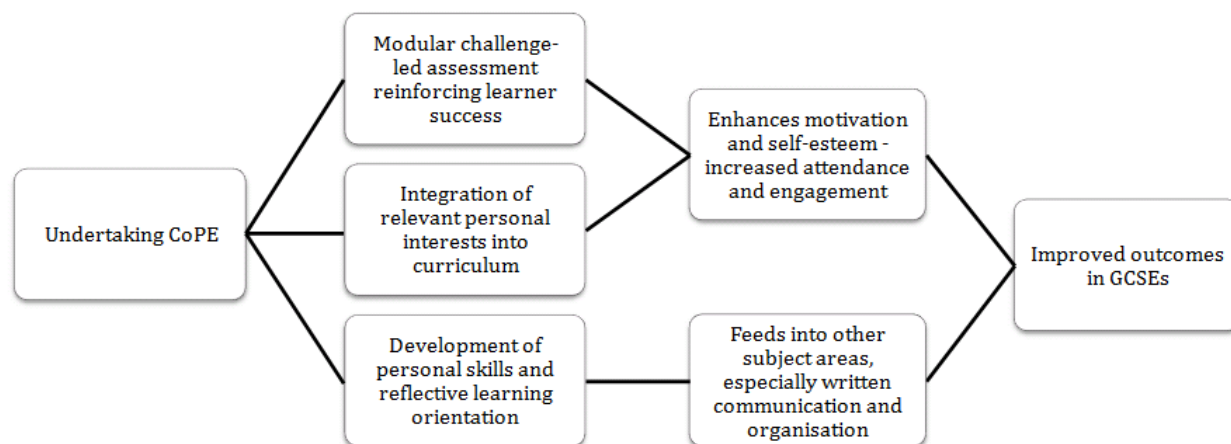


Figure 2: Putative model for causal relationship between CoPE and GCSE outcomes

Firstly, we heard and saw evidence that for some students, CoPE appears to *develop skills and practices that can readily ‘transfer’*, one learner volunteering that ‘CoPE gives us skills for the rest of our GCSEs’. This includes (but is not limited to) written communication, which may help to explain the strong relationship between CoPE and GCSE English reported above. The generation of the portfolio that is used to assess CoPE requires the production of a large quantity of written work that enables learners to improve their ability to marshal information and to write clearly and accurately. Many CoPE ‘challenges’ also promote research skills that are relevant to subjects such as history or geography, where small-scale enquiries are common within coursework. In addition, teaching staff felt that the ‘plan-do-review’ process promoted a structured approach to learning; one described how this had impacted on one learner and how that experience was filtering more widely through the school:

‘Because [a student] worked through the PDRs [plan-do-review worksheets], it gave her structure to her studies. Now she did actually use that elsewhere, it gave her a sort of technique. And what I am trying to do, with some encouragement from the senior staff, is to try to introduce this lower down the school. [CoPE] has got a very effective framework for planning... if it was standardised across the school, I think that would be a very effective thing to do.’

Secondly, CoPE appears to provide a site for *enjoyment in learning and experiences of achieving success*, both of which students are likely to find motivating. The modular nature of the CoPE curriculum gives learners the opportunity to achieve a series of milestones on the way to completion of the full qualification. These small successes appear to provide a

confidence and self-esteem boost, especially those for whom educational success is rare; in one school visited, the learners were very keen to show off their CoPE portfolios to the research team. It was clear that there was significant enjoyment associated with CoPE for nearly all of the interviewed learners; Griffiths (2012) asserts that this form of personal revelation is vital to effective education. The social context of learning was also important, as one learner explained:

'I need a lot of motivation to do things and so sometimes it's better if I've got someone to work with me rather than working on my own so the group work is better for me.'

Others pointed to the active involvement of teachers in their day-to-day learning as engaging them in ways that did not happen in other classrooms. The portfolio of evidence provides continuous formative assessment, with an ongoing and personalised feedback loop between learner and teacher, where the former produces work through 'challenges' that they reflect upon and about which the latter provides their own commentary. This focused approach is clearly time-intensive and it is worth noting that CoPE in three of the four schools visited was delivered with a significantly lower staff/student ratio than GCSE classes.

Thirdly, CoPE appears to *draw upon a wider base of knowledge and activity* than much of the subject-based learning linked to GCSEs. This connection with (and recognition of) things that learners already know and can do, or want to know more about, is likely to generate experiences of a link between school and lives outside school that is otherwise much harder to appreciate; one learner explained, 'I want to come to CoPE [sessions] because I am learning about things that I want to know about'. CoPE was therefore associated for some with an increased relevance of school to 'real life', with a concomitant increase in engagement in school in the round, with a linkage to work experience placements being strongly valued by some learners. CoPE was even reported as having a role in reducing absenteeism:

'We have some students that are truanting PE [physical education] and that means that they are likely to be missing lessons either side, so we have got them doing CoPE because it means they turn up and are then in school and don't miss the other lessons either.'

We saw and heard about many other examples of learners engaged in projects which called upon interests they had developed beyond school, or which represented a fresh approach to matters located within the school. A good example of the latter in our field-notes was where a small group of students had 'project managed' aspects of an Ofsted visit, including the catering.

6. Discussion

To summarise, our quantitative analysis strongly suggests that, once a wide range of other variables is taken into account, undertaking CoPE has a significant relationship with outcomes in GCSEs and that this relationship is stronger amongst groups with the greatest educational disadvantage. These findings were found to be consistent with the experiences of teachers and learners, and taken together, the data suggest plausible mechanisms by which CoPE might exert a positive causal influence on attainment in traditional GCSE subjects.

This relationship is strongly mediated by the context in which CoPE is delivered, being positive in 'wide' schools, but seemingly negative in 'thin' schools. It is important to briefly consider this apparent paradox. In 'thin' schools, the cohort undertaking CoPE tend to be those learners who had suffered educational setbacks, either due to external events or behavioural issues. They were selected by the school as being likely to benefit from the learner-centred, challenge-led and portfolio-building approach of CoPE. They were generally expected not to be in a position to achieve their potential at KS4. For this group, CoPE was part of a strategy of educational (re)engagement designed to bolster attendance, confidence and/or a culture of achievement. However, this input was not generally sufficient to propel these learners on to the highest grades, even if their KS3 attainment suggested they were capable of them. In other words, CoPE may have been able to mitigate some of the educational disadvantage and disruption for this group, but not completely overcome it. Qualitative data supported this hypothesis, with teachers and learners reporting improvements, but not sufficient to compensate for their situational disadvantages.

While this type of learner was also present within the CoPE cohort in the 'wide' schools, they were generally outnumbered by other learners with little or no particular disadvantage relative to their KS3 attainment. In these schools, CoPE was seen as part of a mainstream educational offer, alongside GCSEs and/or vocational qualifications. It was for this reason that 'wide provision' schools were chosen for the pseudo-experimental study; it was this group that provided the most realistic representation of CoPE as provision *alongside* GCSEs.

Furthermore, if the regression models are examined with respect to individuals who did not take CoPE, we find that there is no significant difference between the three categories of school. In other words, if they are not themselves taking CoPE, similar learners achieve similar results regardless of whether the school offers CoPE or not. This suggests that it is not some unknown feature of the school that is responsible for the different attainment patterns in the 'thin' and 'wide' schools. We therefore argue that the estimated effect sizes for learners taking CoPE in 'wide' schools are a realistic appraisal of the impact of CoPE, amounting to a 11 percent increase in the likelihood of achieving a good pass in English and an 19 percent increase for the five good GCSE passes measure.

One particular contribution of the pseudo-experimental part of the study is the finding that the impact of CoPE is greater for certain groups of learners. We note that these groups correspond well with those that may feel most distant from the mainstream academic curriculum. This includes those in the lower ability range, those with English as an additional language and those with special educational needs, who may find their other classrooms to be places where they do not experience success and where they may struggle to participate fully in the learning activities. For these learners, the portfolio-led approach that provides structured opportunities to develop learning skills and confidence in their identities as learners is likely to be of particular importance. Similarly, the impact is greater for those learners from minority ethnic communities and those receiving free school meals, where the negotiation of a culturally-responsive curriculum (Ladson-Billings, 1995) and a respectful pedagogy (Lupton & Hempel-Jorgensen, 2012) may have an especially important role to play; Whitty (2010, p.40) asserts that 'we [educators] have an obligation to explore ways of making connections between school and non-school knowledge' as a step towards making schools more relevant for those most likely to feel excluded from them and as part of a balanced curriculum that continues to include 'powerful knowledge' (Young, 2008).

Furthermore, Whitty (2010) points to the tendency to dichotomise 'knowledge' and 'skills', but also to examples in which educational aims are framed to incorporate both in a productive model. Our evidence suggests that it is likely that when it is provided alongside GCSEs, CoPE is able to provide a curriculum space which offers learners the scope to develop a learning orientation of the type described by Watkins (2010) and Sahlberg (2007). While the supposition is that most learners acquire these skills through the mainstream curriculum, CoPE 'front windows' them, with learners having to demonstrate competence through a portfolio compiled at a pace and with content that respects the individual. Indeed, the skills that are made manifest in CoPE closely mirror those that have been identified over the last two decades as underpinning effective learning, including through to higher education and into graduate level employment, by creating 'independent enquirers, creative thinkers, reflective learners, team workers, self-managers and effective participants' (QCA, 2007, p.1).

Of course, it could be argued that the provision of skills-based qualifications is not a prerequisite for developing such skills during KS4. There are clearly other possible models of delivery, including integration into GCSE curricula or through stand-alone sessions, although schools have struggled to implement such initiatives in the past, due to resistance from subject-focused teaching staff concerned about the squeezing of traditional content or perceived 'initiative overload' (Braun, Maguire & Ball, 2010). However, we argue that the framework provided by CoPE – with the 'plan-do-review' approach, dedicated curriculum space, formative feedback and utilisation of external interests – provides a rich environment for this to occur. Indeed, our research finds a positive relationship between CoPE and GCSE outcomes even among higher ability learners.

While the idea of transfer of such skills between different settings can be challenged (Hyland & Johnson, 1998; Hager & Hodkinson, 2009), our analysis does provide a degree of empirical evidence of transferability, across contemporaneous elements of the KS4 curriculum, from CoPE to GCSEs. It may even suggest that some learners benefit from a 'symbiosis' between the two different approaches, along the lines suggested by Doyle (2012). Indeed, if CoPE is successful in developing skills around writing, research and self-reflection, it is hard to see how this would not impact positively on learning and measured attainment in academic subject-based courses that are pursued at the same time.

It would appear, therefore, that prior to its downgrading, CoPE (and potentially other skills-based qualifications) was very likely indeed to be making two distinct contributions to GCSE results. The first and obvious one is that it was offering learners an alternative means of achieving a 'GCSE equivalent' pass, to both their benefit and that of the school. However, secondly and more importantly, the skills and practices of CoPE seem likely to have been transferring into academic (and potentially vocational) courses and raising attainment therein, especially for disadvantaged learners.

7. Conclusions and implications for policy

The research reported here attends directly to the issues signalled by Wolf (2011), in that it critically examines the contribution made by one particular qualification to performance indicators at KS4. To our knowledge, the role of skills-led qualifications in promoting traditional forms of attainment has not been examined before and we are not aware of any research evidence that would provide grounds for arguing that such qualifications do *not* contribute in a meaningful way to the general achievement of learners. We have examined this through the lens of one such qualification which is both well-established and well-regarded. Clearly we are unable to determine whether the reported results are a feature of this particular qualification or of the wider family of skills-led qualifications.

The recent removal of skills-led qualifications from headline performance measures is puzzling in this regard, and may be the product of a category error – a mistaken classification as 'vocational' qualifications and thus within the purview of the Wolf Review and equally subject to the policy decisions based upon it. If this is the case it may be described as both unfair and unfortunate; condemned as 'by-catch'. Skills-led qualifications are neither vocational nor academic in any normal characterisation of those terms: they are instead driven by a distinct process that is compatible with either vocational or academic qualifications or combinations of the two. Given the performative pressures on schools, the removal of skills-led qualifications from headline quality measures means that schools are much less likely to offer them, and this may inadvertently deny thousands of learners access to programmes that we believe are demonstrably supportive of their development of a range of valued skills, processes and practices. As outlined earlier, Watkins (2010, p.5) uses a broad international evidence

base to argue that it is precisely this sort of learning orientation that is 'central to achievement'.

Indeed, in a period where the clamour to import educational ideas from countries constructed as more successful than the UK runs rife, it is paradoxical that this very concept of learning orientation – considered vital in Finland, for example (Sahlberg, 2007) – is not one that presently holds much currency. If Elliott (2014) is correct, future governments should be looking to ways of promoting engagement and motivation in order to compete internationally; areas where the UK languishes behind (West, 2010). Instead, the drive to increase 'standards' is most likely to see schools focus curriculum time on academic subjects (Lupton & Hempel-Jorgensen, 2012).

We argue, therefore, that an unintended consequence of the policy change on skills-led qualifications is that learners and schools may both see a fall in their performance against accepted standards and that some of the former may also move through KS4 with a less well-developed learning orientation. This effect is most likely to manifest for those learners with the greatest disadvantage, for whom skills-based qualifications are a means of building confidence, motivation, enjoyment and a positive relationship with the school. Given recent debates about 'powerful knowledge' and its capacity to enhance opportunity for disadvantaged learners, this outcome is deeply, and chillingly, ironic.

Whilst it is beyond the scope of this present paper to explore in detail the implications for current debates about 'powerful knowledge' (Young, 2009) our research evidence on the impact of one skills-led qualification on GCSE outcomes suggests that it is simplistic and unhelpful to treat the two entities as if they were somehow mutually exclusive or merely representative of opposite alternatives, a point others have made before (see Whitty, 2010). Pursuing skills-led qualifications alongside GCSEs appear to provide a significant uplift in KS4 attainment, which strongly suggests they have an important role in making 'powerful knowledge' more widely accessible.

Table 1: Good pass in GCSE English, by 'imagined' schools

	Did not achieve good English pass	Achieved good English pass
No CoPE group (n=3,557)	33.5% (1,190)	66.5% (2,367)
CoPE group (n=3,557)	29.3% (1,041)	70.7% (2,516)
All (N=7,114)	31.4% (2,231)	68.6% (4,813)

Table 2: Five good GCSE passes, by 'imagined' schools

	Did not achieve 5 good GCSE passes	Achieved 5 good GCSE passes
No CoPE group (n=3,557)	46.8% (1,663)	53.2% (1,894)
CoPE group (n=3,557)	43.8% (1,559)	56.2% (1,998)
All (N=7,114)	45.3% (3,222)	54.7% (3,892)

UNDER REVIEW

Table 3: Regression model for GCSE English at grades A* to C

	B	SE	t	p	OR	Est. RL
Intercept	-.648	.065	-9.966	<.001	.523	.781
School level variables:						
Pass rate for English and Maths at grades A* to C	.030	.001	29.640	<.001	1.031	1.009
Neighbourhood deprivation rate	.008	.001	12.426	<.001	1.008	1.002
Individual level variables:						
KS3 English attainment (Reference = Level 5)						
- Level 2 and below	-4.799	.055	-87.959	<.001	.008	.026
- Level 3	-4.068	.044	-93.498	<.001	.017	.053
- Level 4	-2.400	.013	-189.754	<.001	.091	.246
- Level 6	2.805	.019	146.578	<.001	16.527	1.405
- Level 7	4.973	.094	52.765	<.001	144.507	1.439
Gender (Reference = male)	.237	.009	25.233	<.001	1.267	1.069
Ethnicity (Reference = white):						
- BME	.245	.018	13.265	<.001	1.278	1.072
- Unknown	-.068	.044	-1.551	.121	.935	.979
Special educational needs (Reference = no)	-.942	.011	-84.674	<.001	.390	.676
Free school meals (Reference = no)	-.459	.013	-33.971	<.001	.632	.848
English as additional language (Reference = no)	.332	.022	14.821	<.001	1.393	1.095
Persistent KS3 absentee (Reference = no)	-.915	.025	-37.189	<.001	.400	.685
CoPE (Reference = 'no CoPE offered in school'):						
- Did not undertake CoPE in 'thin' school	<.001	.029	-.001	.999	1.000	1.000
- Undertook CoPE in 'thin' school	-.772	.051	-15.111	<.001	.462	.737
- Did not undertake CoPE in 'wide' school	.001	.117	.007	.995	1.001	1.000
- Undertook CoPE in 'wide' school	.399	.116	3.444	.001	1.491	1.112

Table 4: Regression model for five GCSE passes at A* to C including English and maths, excluding equivalent qualifications

	B	SE	t	p	OR	Est. RL
Intercept	-2.709	.057	-47.657	<.001	.067	.145
School level variables:						
Pass rate for English and Maths at grades A* to C	.026	.001	29.416	<.001	1.026	1.011
Neighbourhood deprivation rate	.012	.001	21.332	<.001	1.012	1.005
Individual level variables:						
KS3 English attainment (Reference = Level 5)						
- Level 2 and below	-2.660	.083	-31.887	<.001	.070	.151
- Level 3	-2.749	.072	-37.997	<.001	.064	.139
- Level 4	-1.565	.018	-88.469	<.001	.209	.385
- Level 6	1.227	.012	98.770	<.001	3.409	1.425
- Level 7	2.024	.036	55.644	<.001	7.568	1.578
KS3 mathematics attainment (Reference = Level 5)						
- Level 2 and below	-1.642	.120	-13.686	<.001	.194	.363
- Level 3	-4.109	.146	-28.135	<.001	.016	.037
- Level 4	-2.166	.027	-81.013	<.001	.115	.235
- Level 6	1.848	.011	169.696	<.001	6.349	1.552
- Level 7	3.343	.017	198.715	<.001	28.295	1.687
- Level 8	4.667	.055	84.265	<.001	106.390	1.718
Gender (Reference = male)	.400	.100	38.466	<.001	1.492	1.162
Ethnicity (Reference = white):						
- BME	.286	.019	14.270	<.001	1.331	1.117
- Unknown	-.121	.045	-2.663	.008	.886	.948
Special educational needs (Reference = no)	-.671	.013	-50.672	<.001	.511	.712
Free school meals (Reference = no)	-.441	.015	-28.672	<.001	.643	.810
English as additional language (Reference = no)	.558	.024	23.267	<.001	1.747	1.220
Persistent KS3 absentee (Reference = no)	-1.021	.031	-33.153	<.001	.360	.571
CoPE (Reference = 'no CoPE offered in school'):						
- Did not undertake CoPE in 'thin' school	.028	.025	1.130	.258	1.028	1.012
- Undertook CoPE in 'thin' school	-.452	.060	-7.470	<.001	.637	.806
- Did not undertake CoPE in 'wide' school	.075	.104	.718	.473	1.078	1.031
- Undertook CoPE in 'wide' school	.464	.102	4.537	<.001	1.590	1.186

Table 5: Good GCSE English pass, by explanatory variables and 'imagined school'

		Pass rate – CoPE 'school'	Pass rate – non-CoPE 'school'	Diff.	No. of pairs	X ² test (all 1df)	p value
KS3 English	Low (<L5)	21.3	11.9	9.4	779	24.678	<.001
	Average (L5)	73.4	69.8	3.6	1,555	4.784	.029
	High (>L5)	98.9	97.1	1.8	1,223	9.184	.002
Gender	Male	62.2	58.0	4.2	1,589	5.892	.015
	Female	77.6	73.4	4.2	1,968	9.238	.002
Ethnicity	White	69.0	65.7	3.3	2,992	7.446	.006
	BME	80.1	70.6	9.5	523	12.863	<.001
	Unknown	78.6	78.6	0.0	42	.000	1.000
SEN	Yes	45.0	38.6	6.4	977	8.349	.004
	No	80.5	77.1	3.4	2,580	8.579	.003
FSM	Yes	59.2	52.5	6.7	579	5.327	.021
	No	73.0	69.3	3.7	2,978	9.891	.002
EAL	Yes	82.1	73.1	9.0	364	8.608	.003
	No	69.4	65.8	3.6	3,193	9.623	.002
Absentee	Yes	44.4	34.4	10.0	90	1.884	.170
	No	71.4	67.4	4.0	3,467	13.310	<.001
Deprived area	Yes	62.7	59.0	3.7	1,010	2.845	.092
	No	73.9	69.5	4.4	2,547	12.144	<.001

Table 6: Five good GCSE passes, by explanatory variables and 'imagined school'

		Pass rate – CoPE 'school'	Pass rate – non-CoPE 'school'	Diff.	No. of pairs	X ² test (all 1df)	p value
KS3 English	Low (<L5)	9.2	6.0	3.2	779	5.686	.017
	Average (L5)	51.9	48.0	3.9	1,555	4.630	.031
	High (>L5)	91.5	89.9	1.6	1,223	1.753	.186
KS3 maths	Low (<L5)	3.2	3.1	0.1	781	.021	.885
	Average (L5)	32.1	31.0	1.1	831	.226	.635
	High (>L5)	87.7	82.9	5.8	1,945	18.111	<.001
Gender	Male	51.1	48.0	3.1	1,589	3.147	.076
	Female	60.3	57.5	2.8	1,968	3.060	.080
Ethnicity	White	54.4	51.9	2.5	2,992	3.775	.052
	BME	65.6	60.8	4.6	523	2.569	.109
	Unknown	64.3	54.8	9.5	42	.791	.374
SEN	Yes	27.1	24.9	2.2	977	1.287	.257
	No	67.2	64.0	3.2	2,580	5.773	.016
FSM	Yes	43.4	37.5	5.9	579	4.145	.042
	No	58.7	56.3	2.4	2,978	3.366	.067
EAL	Yes	69.8	61.8	8.0	364	5.133	.023
	No	54.6	52.3	2.3	3,193	3.540	.060
Absentee	Yes	23.3	17.8	5.5	90	.851	.356
	No	57.0	54.2	2.8	3,467	5.726	.017
Deprived area	Yes	47.1	45.0	2.1	1,010	.879	.349
	No	59.8	56.5	3.3	2,547	5.556	.018

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¹ The English Baccalaureate (EB) is not a distinct curriculum entity in the sense of the International Baccalaureate, but rather a further narrowing of the 'threshold' measure already mentioned in this paper: the measure of note would henceforth include five GCSE A* to C passes comprising English, mathematics, science, a language and a humanities subject. The EB was presented by the Government as defending breadth and as a way of addressing a perceived decline in standards, though for some commentators it promised the exact opposite of both of these things: a parliamentary Education Select Committee came to the view that it had been introduced with inadequate consultation and insufficient research, and that a contemporary review of the National Curriculum should have been used to inform so fundamental a policy change (UK Parliament, 2011). Many of the organisations giving evidence to the Select Committee had concerns that the English Baccalaureate would effectively narrow the curriculum and would have a detrimental effect on the standards of education for the many learners who do not respond well to academic subjects, curricula or assessment regimes.

² In logistic regression models, the 'odds ratio' is often used as a readily-understood measure of effect size, being related to the relative likelihood of a positive outcome (i.e. achieving a good pass) given a certain value of the explanatory variable, when compared to a reference category. Indeed, when the outcome of interest is rare (i.e. achieved by fewer than 10 percent of the sample), the odds ratio can be used directly as an estimate for the relative likelihood. However, both the outcome variables in this study are relatively common (i.e. there are high pass rates). In this situation, the odds ratio ceases to be a good estimate for the relative likelihood, and so Zhang & Yu's (1998) adjustment is used to provide a more accurate estimate:

$$\text{Estimated RL} = \frac{OR}{(1-P)(P \cdot OR)}$$

(where RL is the relative likelihood, OR is the odds ratio and P is proportion of individuals in the group of interest – i.e. the overall pass rate)