Early entry to GCSE

Overview

The purpose of this paper is to provide an overview of the literature relating to the issues surrounding early entry at GCSE. First, it will define the concept of early entry and provide the background to early entry at GCSE, by considering its origins for gifted and talented students and the subsequent proliferation to a wider range of students. It then examines the motives thought to influence why students are entered early, the potential effects for both students and schools and the possible causes of these effects. Finally, it considers the future implications of early entry in relation to on-demand testing and future reforms to the examination system.

What is an early entry?

Before turning to the issues surrounding early entry it is important to consider what is specifically meant by this term, as the definition is likely to differ depending upon the context in which it is being studied and the assessment mode to which it refers. Within the assessment system in England there are expectations that students will sit examinations at certain stages in their education, with the main qualifications being the GCSE that was designed to be taken at age 16 (end of year 11) and the A-level qualification taken at age 18 (end of year 13). These particular qualifications mark significant points in the education system; the GCSE marks the end of compulsory education and, as such, can be viewed as a school leaving qualification (although the school leaving age is due to increase from 2013; DfES, 2007), whilst the A-level follows two years later and is primarily viewed as a means of preparing students for further University level education (e.g. Gove, 2012a), although this notion is debated (e.g. Association of School and College Leaders, 2012; see also Newton, 2007, for a discussion of the uses to which assessment results might be put).

Although the term early entry is now commonly used in the English assessment context, no specific definition was found within the literature of what constitutes an early entry. However, given the structure of the assessment system and the expectation that qualifications will be sat at certain ages (and in certain school years), it follows that early entry can be defined as situations in which students certificate (or complete) these qualifications before intended. In the case of GCSEs and A-levels, this would entail students certificating before the end of year 11 and 13, respectively. Although GCSEs and A-levels are both well-established qualifications, their structure has changed over time, something that will have a bearing on how early entry is defined. For example, from September 2009 the majority of GCSEs adopted a modular structure where students were able to sit the assessments in smaller parts leading up to certification, contrasting to the linear approach used previously1. These changes give rise to

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1 Note that there will be a return to linear assessments at GCSE from September 2012 (DfE, 2010), although it is likely that some modular assessments will still be available in Wales and Northern Ireland, at least for the time being (Cuthbert, 2011; Department of Education (NI), 2012).
complications over the definition of early entry as, in a modular context, there is an expectation that students will sit some modules before the end of year 11; indeed, this is the main feature of a modular qualification and would be considered ‘the norm’ for many subjects. Hence, for the purpose of this review, early entry will be used to refer to students certificating early, rather than those sitting modular assessments before the end of year 11. However, given that the use of modular assessments gives rise to similar issues as early certification, particularly with regard to the effects of preparedness and maturity, evidence concerning modular assessments will be drawn upon where appropriate.

In addition to changes to the structure of the GCSE qualification, it is also worth noting that at the time of writing, wider changes to the examination system were being announced. Whilst plans to replace the GCSE with English Baccalaureate certificates (Gove, 2012b) have recently been scrapped (Gove, 2013), there are plans to reform the GCSE qualification for first teaching from September 2015. It is anticipated that the new GCSEs will be more challenging than existing GCSEs, potentially be graded differently and entail a single, un-tiered, examination at the end of the two year course of study. It is not clear at present how such changes will influence early entry, or indeed, whether early entry will be permitted under this new structure, hence the remainder of this review focuses upon the GCSE qualification as it currently exists. Nonetheless, it is anticipated that the introduction of these qualifications will increase the potential for students of different ages to sit the same qualification, hence raising potential issues regarding maturity and the performance of different age cohorts.

Although this review focuses on the English assessment context, early entry is also prevalent in other assessment systems, yet the terminology and/or definition may differ, depending upon the structure of that particular system. In Scotland, for example, students are expected to sit qualifications at the same age as in England (i.e. Standard grades are taken at age 16 and Higher grades at age 18), yet early entry is widely referred to as ‘early presentation’ (e.g. Scottish Executive, 2005; Boyd, 2005). The situation in Scotland has also differed as, until recently, ‘age and stage’ regulations were in place, whereby students were restricted from entering their Standard and Higher grades before reaching a certain age. These regulations were relaxed in 1999 and then later removed (Scottish Executive, 2005), although it is still advised that early presentation should only be used if it is in the best interests of the individual student (The Scottish Government, 2008). In contrast to the UK context, other assessment systems (such as the US) use early entry in a different way, as here it is more common for students to be accelerated a whole academic year; hence, they are not entered early as such, as they have studied alongside their older peers for a sustained period of time.

Early certification at GCSE

Focusing specifically on GCSEs and the English assessment context, early entry would encompass any situation where a student certificated prior to when intended (i.e. before the end of year 11), regardless of whether they completed the assessments via a linear or modular route. However, within this definition, there is a distinction between varying degrees of early entry. Students may certificate during (but before the end of) year 11 in some subjects (e.g. certification in GCSE English and mathematics is available in a November examination series)

2 For certain pilot qualifications (typically GCSE mathematics), certification is also available in the January examination series.
year 11), as the evidence suggests that entry prior to this (i.e. in year 9 and before) is still relatively rare (DfE, 2011). The varying degrees of early entry are likely to impact differently on students, given the levels of maturity that students will be at when they sit the assessments. Furthermore, whether students followed a modular or linear route through the qualification may also be influential, given that those taking a modular route are likely to have sat some of the assessments at a younger age.

**The history of early entry…**

**Early entry for the most able**

Despite becoming more prominent in recent years, the concept of early entry is certainly not a new one. A study from 1980, for example, exploring school curriculum and assessment standards highlights the issue of early entry which, in this case, was reserved for the more able students who entered English and mathematics O-levels early, a policy adopted more frequently by grammar schools (Bryan & Digby, 1983; see also Bell, 2001). Other sources concur that, in the past, early entry was largely used to accelerate the more able students (DfE, 2011; Pope & Noyes, 2011), a practice that was likely to have been encouraged following the increased focus on providing for gifted and talented students in recent years (DfEE, 1997; DfES, 2001, 2005a; Freeman, 2002; DCSF, 2007). For example, the 2001 Government White Paper titled ‘Schools Achieving Success’ (DfES, 2001) set out a policy for gifted and talented children that aimed to, 

“Blend increased pace, depth and breadth in varying proportions according to the ability and needs of pupils. We want teachers to consider express sets, fast-tracking and more early entry to GCSE and advanced qualifications.”

The White Paper also stated the need to re-consider the assumption that students should progress through the education system at the same rate and outlined the Government's intentions to amend legislation to allow more students to take examinations early. The need to provide for gifted and talented students continued to feature in later White Papers (DfES, 2001; 2005a), resulting in a number of strategies being adopted by schools; these included the use of early entry as a method of accelerating students and/or providing the opportunity for enrichment.

During this time, the notion of personalised learning also became more prominent after featuring high on the Labour Government's agenda (Miliband, 2004). The aim of personalised learning was “to provide an education to every child, which is tailored to their unique learning styles, motivations and needs”, although some confusion ensued over the following years regarding what this should actually entail and it was debatable how successful the policy was (e.g. see Baker, 2008). Despite this, there are clear links between the desire for personalised learning and the use of acceleration and enrichment; indeed, early entry as a means of accelerating students and providing opportunities for enrichment could be viewed as facilitating personalised learning, by allowing students to enter examinations when they are deemed ready (within the confines of the availability of assessments) or study additional qualifications. Since the formation of the Coalition Government in 2010, the use of the term personalised learning has diminished. However, this issue is likely to be relevant again in the future, particularly if the use of on-demand testing increases, as this system has the potential to offer greater personalisation of learning.

**Acceleration and enrichment**

The desire for increased provision for the most able students has opened the debate regarding the use of acceleration and enrichment strategies. In the UK context, acceleration for the most able students has typically been used to refer to two scenarios; instances where a group of
students sit qualifications early and progress to more demanding work ahead of their peers, and situations where individual students work with older students for certain parts of their timetable (Westminster Institute of Education, 2006). Although the meaning can be slightly different in the US context (where students can skip entire academic years), it is here where much of the evidence concerning the effects of acceleration resides. Acceleration has been well researched over recent years and the observed effects are consistent within the literature (see Colangelo, Assouline, & Gross, 2004, for a review; Reis & Renzulli, 2010). Such effects include positive benefits for students’ attainment and future progression, as well as benefits for their academic experience and motivation.

The use of acceleration strategies in England has undoubtedly been encouraged by the Government in recent years (DfES, 2001; 2005b) and can evidently be beneficial (see Colangelo, Assouline, & Gross, 2004), yet this model is not without criticism. For mathematics, critics argue that acceleration for the most able can have disadvantages (UK Mathematics Foundation, 2000; cited by Koshy & Casey, 2005). For example, it can result in students not learning more mathematics but learning the same amount sooner (Fielker, 1997; cited by Koshy & Casey, 2005), meaning that there are no benefits in terms of their learning. The use of acceleration can be particularly problematic at GCSE when schools do not have sufficient provision for students who complete their GCSE early (see Noyes & Sealey, 2011), with many organisations arguing that acceleration should only be adopted when there is suitable provision for students the following year (e.g. The Institute of Mathematics and its Applications and the London Mathematical Society, (IMA and LMA), 2011). This provision could involve an enriched curriculum being offered (i.e. allowing students to study additional qualifications in year 11; see Noyes & Sealey, 2011), or allowing students to start the A-level programme of study early, taking this over three (rather than the usual two) years (Bond, Green & Jaworski, 2009), thus aiding the transition from GCSE to A-level (Mathematics in Education and Industry, 2009).

Whilst there is some debate over the merits of acceleration for the most able students, the use of enrichment is widely supported. This strategy typically involves students studying a subject in greater depth or breadth and can be used alongside acceleration (i.e. where students enter early and take additional qualifications the following year), or in isolation (i.e. where students study additional material or qualifications but do not sit assessments early). There is considerable support for enrichment as a means of providing for the most able students, particularly in the mathematics community, where enrichment is frequently cited as a preferable strategy to acceleration (e.g. Winter, 2001; The Mathematical Association, 2010). Furthermore, there is evidence that many in the teaching profession share this view (Chyriwsky & Kennard, 1997). In a survey of 524 teachers in mathematics departments, enrichment was cited as the preferred strategy for dealing with able children, with fewer than half of respondents supporting the use of early entry (46.6%; Chyriwsky & Kennard, 1997). Whilst the debate regarding acceleration and enrichment for the most able students will no doubt continue in the literature, it is the increase in early entry at GCSE for average and less able students that has begun to attract more interest.

The increase in early entry

As discussed, early entry at GCSE was traditionally reserved for a small group of highly able students (despite some debate regarding its merits), yet more recently there have been significant increases in the proportion of students who are being entered early (e.g. DfE, 2011; Gill, 2010). This is particularly the case for GCSE English and mathematics (DfE, 2011; Advisory Committee on Mathematics Education (ACME), 2011; Pope & Noyes, 2011; Gill, 2010), with an increasing number of schools reportedly using early entry strategies for a wider range of students than just the most able. For example, a number of National Challenge
schools reported entering 90% or more of their students early for GCSE mathematics in 2009 (ACME, 2011; see also DfE, 2011), whilst a survey undertaken in summer 2011 with a representative sample of 692 secondary schools in England revealed that 81% of respondents entered some pupils for some GCSEs in years 9 and 10, with the majority reporting no plan to change this strategy (Centre for Analysis of Youth Transitions, 2011).

The increase in early entry has been coupled with a decline in the outcomes for these students (DfE, 2011), suggesting that, as a cohort, students who enter early are performing worse. This suggests that schools might be entering a wider range of students early, rather than just the most able (DfE, 2011; Pope & Noyes, 2011). Indeed, there is evidence that it is the lower attaining schools that are increasingly entering students early (DfE, 2011), with independent schools being the least likely to adopt this practice (DfE, 2011; Noyes, Drake, Wake & Murphy, 2010). The increased use of early entry for a wider range of students is likely to have implications for re-sitting rates (the effects of which will be discussed later), with reports suggesting that a high proportion of early entries re-sit at a later stage (DfE, 2011). The motives behind the increase in early entry for a wider range of students are likely to differ from those that influence why the most able students were traditionally entered early, and it is to the former issue that this review now turns.

Why are more students being entered early?

The factors influencing why students are increasingly being entered early are likely to be complex and inter-linked. Whilst many sources are critical of early entry and cite policy decisions at a Government level as the main driver, there are also likely to be instances of schools using early entry as a strategy to benefit their students. The policy changes that are thought to have influenced schools’ entry practices are related to decisions concerning the structure and format of the assessment system, as well as those relating to accountability and performance measures, the latter of which is likely to have different implications for different subjects. For example, initiatives such as performance league tables and the introduction of the English Baccalaureate (EBacc) are likely to have placed increased emphasis on certain ‘key’ subjects.

The number and rate of policy changes in education over recent years has seemed to increase dramatically, requiring schools to react to and enact a number of (often competing) policies (Braun, Maguire & Ball, 2010). This has been coupled with increased Government influence over the qualification system (Isaacs, 2010), often making it difficult to fully understand and isolate the impact of each policy decision on a particular issue such as early entry. Nonetheless, the following section outlines some of the recent policy developments relating to GCSEs and discusses how such changes might have impacted upon early entry.

The influence of policy decisions

Performance League tables

One of the most significant initiatives likely to have influenced early entry that has featured in successive Governments strategies is the use of performance league tables for accountability

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3 The National Challenge aimed to ensure that at least 30% of students in all secondary schools achieved five GCSEs at grades A* to C, including English and mathematics; National Challenge schools were identified as those that fell below this target (Balls, 2008a).

4 Re-sitting rules allow students to retain their highest grade.

5 The likely effects of early entry are discussed in a later section.
purposes. First introduced in 1992 by the then Conservative Government, performance tables aimed to provide parents with information about each schools’ performance, with the key measure for GCSE being the percentage of students who achieved five or more GCSE passes at grades A*-C. This measure continued to be prioritised by the Government in later White Papers (e.g. DfES, 2001), with further changes to the league tables being made in 2007 when English and mathematics became a requirement in the five A*-C GCSE measure (DfES, 2005b), causing significant changes in the outcomes for some schools (Baker, 2007).

Although English and mathematics have featured as ‘core’ subjects in the National Curriculum since the Education Reform Act in 1988 (DES, 1988), their inclusion as a key performance indicator in the GCSE league tables has cemented their importance further, thus increasing the pressure within schools to ensure that students achieve at least a grade C in these subjects (see Perryman, Ball, Maguire & Braun, 2011; Pope & Noyes, 2011; Noyes & Sealey, 2011). As argued by Perryman, Ball, Maguire & Braun (2011), this has led to schools becoming pre-occupied with examination results and an increasing number of strategies being adopted to try and improve results, including the use of early entry to give students the opportunity to re-sit if necessary. This view is supported by several sources. For example, with reference to GCSE mathematics, ACME (2011) believe that, “an all-consuming focus on league tables is skewing behaviour in schools”, forcing schools into prioritising performance measures over the interests of individual students. This view is shared by The Mathematical Association (2010), who cite government policy and the resultant fears of head teachers, teachers and parents as a key driver for early (and repeated) entry for GCSE mathematics. Furthermore, there is evidence showing that the lower attaining schools and National Challenge Schools have a greater propensity for entering students early (ACME, 2011; DfE, 2011), as well as those schools where “the proportion of pupils reaching the threshold grade C is crucial to school targets” (The National Strategies, 2009; see also Noyes, Drake, Wake & Murphy, 2010). Thus, it appears that as a reaction to increased accountability measures, schools are using early entry as a strategy to give students multiple attempts to try and ensure that they achieve a grade C in certain subjects (the resource and logistical implications of this are discussed later). Indeed, there is evidence that the number of GCSEs that younger students take has remained stable over time (Gill, 2010), suggesting that schools are only using early entry for certain subjects.

Although entering students early to ensure that they achieve a grade C for the purposes of performance tables is widely criticised and arguably detrimental for students’ learning, it is important to remember the importance placed on the grades that students achieve, particularly with regards to accessing further university education and employment. Indeed, many universities and employers cite grade C in GCSE English and mathematics as their minimum entry criteria and this grade is often described as a ‘good’ pass (e.g. see DfE, 2010). Hence, although there are potential negative effects of entering early, including those for students’ learning, for some, the ability to re-sit and achieve a grade C in key subjects might off-set these. Furthermore, it has been argued that early entry can be beneficial for those students who have low self-esteem and lack confidence in their ability. Here, achieving a grade D through early entry can be motivating and give students’ the confidence to go on and achieve a higher grade the following year (Association of School and College Leaders, 2011).

The introduction of the English Baccalaureate

The increased focus on performance tables and accountability appears to be increasing pressure on schools, resulting in them adopting a number of strategies, including early entry, to try and improve results, particularly in key subjects such as English and mathematics. A further policy change that could impact upon early entry in a wider range of subjects is the introduction of the English Baccalaureate (EBacc) announced in The Schools White Paper in 2010, a measure of which will be included in performance league tables (DfE, 2010). The EBacc intends to recognise achievement.
“...for any student who secures good GCSE or iGCSE passes in English, mathematics, the sciences, a modern or ancient foreign language and a humanity such as history or geography”

Whilst it is currently too early to be certain what effects the introduction of the EBacc might have, or indeed the perceived value and importance of this ‘qualification’, it seems likely that its introduction will influence schools’ subject choices and their entry policies to GCSE, putting additional pressure on certain subjects (Perrymann, Ball, Maguire & Braun, 2011). This view is supported by a survey of a representative sample of 692 secondary schools in England undertaken in June/July 2011, where around half of respondents reported that the EBacc had influenced the curriculum that they intended to offer (Centre for Analysis of Youth Transitions, 2011). Furthermore, within these schools, an increasing proportion of younger students were taking EBacc subjects, suggesting that its introduction has also influenced students’ subject choices (although this may have also been influenced by schools changing the subjects that they offer to students). Other sources cite a similar effect of the EBacc, with institutions changing their curriculum offerings to focus on EBacc subjects (Hodgson and Spours, 2011) and the popularity of certain non-EBacc subjects declining (Mansell, 2011). Whilst this suggests that the EBacc is proving influential on schools’ curriculum provision, its effect on early entry itself is not clear as yet. Nonetheless, there is some evidence that a small number of schools are changing their early entry policies in response to the introduction of the EBacc (Centre for Analysis of Youth Transitions, 2011). It is likely that the greater emphasis on EBacc subjects could encourage early entry in a wider number of subjects, with the aim of ensuring that students achieve the required grade C by the end of year 11, in addition to maintaining the pressure on English and mathematics.

The removal of KS3 tests

In addition to policy changes related to performance measures and accountability, changes to the structure of GCSEs and the wider assessment system are also likely to have influenced early entry. The potential for entering students early to GCSE is likely to have been encouraged following the decision in October 2008, by the then secretary of State for Education, to abolish KS3 testing for 14 year olds (Balls, 2008b); prior to this, national testing had been compulsory since 1993 at the end of year 9. When announced, the removal of these tests attracted widespread support from a number of sources including teaching unions, parents and other organisations (e.g. Lipsett, 2008; Paton & Moore, 2008) although more recently, concerns have been expressed regarding how this change might impact upon schools’ entry policies at GCSE. A number of sources have suggested that the removal of KS3 tests is likely to encourage schools to begin the KS4 programme of study early and to enter students early for GCSE assessments (e.g. ACME, 2011; Pope & Noyes, 2011; Noyes, Drake, Wake & Murphy, 2010). In some respects, the changes at KS3 could be beneficial, as students will not be distracted by assessments at the end of KS3 so will have more time to engage with the subject content than before. However, if this is coupled with early entry to GCSE, there may also be detrimental effects, which will be discussed later.

Modular assessments at GCSE

The removal of KS3 tests was shortly followed by changes to the structure of the GCSE qualification for the majority of subjects for first teaching from 2009 (QCA, 2008), when a modular structure was introduced. Whilst the majority of GCSEs had previously adopted a linear structure with 100% of the assessment being taken at the end of the course (notable exceptions being GCSE mathematics and science where a modular route had been available), the new

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6 New GCSEs in English, mathematics and science followed in later years.
modular structure and associated qualification criteria allowed students to take the assessments throughout the two year course in smaller parts and re-sit individual modules⁷ (QCA, 2008). Although these changes are often associated with the Labour Government’s reforms to 14-19 education (DfES, 2005b), a modular structure at GCSE has arguably been permitted under the Ofqual criteria for GCSE qualifications since 1999 (Heinrich & Stringer, 2012). Hence, the changes are likely to have stemmed from market, rather than political forces (Heinrich & Stringer, 2012). Within the new modular structure, schools could still adopt a linear approach to GCSEs; however, many took advantage of the new structure by entering students for modules early (e.g. during year 9 and 10), thus providing opportunities for students to re-sit modules throughout the remainder of the course and improve their final grade⁸ (Vidal Rodeiro & Nádas, 2012). Such practices are likely to have been encouraged by the greater availability of modular assessments throughout the academic year; whilst linear assessments were typically only available in a June series (exceptions being GCSE English and mathematics), the modular structure allowed students to sit some modules in the January examination series.

Whilst there is no evidence to suggest that modular assessments in themselves encourage students to certificate at GCSE early, they inevitably, by design, encourage students to sit some GCSE assessments/modules prior to the end of year 11, resulting in a greater number of younger students (i.e. year 9 and 10 students) being assessed at GCSE level. Given that students sitting modules early are still expected to demonstrate the same level of performance as students sitting the assessments at the end of the course (i.e. no allowances were made for younger students), this raises the issue of maturation and how this might affect a student’s performance. It is argued that students sitting modules early might lack the maturity to perform to their full potential, even if they have studied the whole programme of study (Vidal Rodeiro & Nádas, 2012; Taverner & Wright, 1997; Clark, 1996), an issue that will be returned to later.

More recently, the coalition Government has implemented a return to linear examinations in all GCSE subjects for first teaching from September 2012 (DfE, 2010; Ofqual, 2012). Nonetheless, it is likely that the move to modular assessments will have had some influence on schools entry policies, possibly encouraging early entry to modular assessments and/or certification that may persist in the new linear structure. Furthermore, it is likely that lessons can be learned regarding the effects of maturity from the brief period that modular assessments were available.

**The motives of schools**

The range of policy changes in recent years has undoubtedly had some influence on how schools organise their curriculum and their entry/early entry policies for GCSEs. In addition, there are also likely to be decisions and motives within individual schools that influence early entry, although much of the evidence concerning this is currently anecdotal. For example, there are reports that one motive for schools entering students early is to raise their profile and/or as an example of their gifted and talented provision (Winter, 2001; ACME, 2011). Indeed, a quick search of the internet reveals a number of schools who publish documents detailing their use of early entry policies. Such practices are presumably adopted to attract prospective students to the school and impress parents (ACME, 2011). Other anecdotal evidence suggests that some schools use early entry as a method of reducing the pressure on students by spreading the assessments over multiple examination series, a practice that the students are reportedly in favour of (e.g. see Curtis, 2009). Indeed, Putwain (2008) hypothesises that in addition to

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⁷ There remained a requirement for students to sit 40% of the assessment in the series they intended to certificate though (QCA, 2008).

⁸ In the modular GCSE structure students were allowed to re-sit each module once, with the highest mark counting towards certification (QCA, 2008).
spreading the assessment burden, early entry can reduce the stress experienced by students as it provides examination practice.

Another slightly different motive for schools to use early entry includes situations when there are concerns over whether a student will remain in education until the end of compulsory schooling. In such instances, early entry might be in the best interests of the student, potentially allowing them to gain a qualification that would otherwise not be available to them (Pope & Noyes, 2011; ACME, 2011). Such situations are likely to be relatively rare, however, and are not likely to contribute significantly to the observed increase in early entry.

To summarise, it appears that the increase in early entry is likely to have been influenced by a number of policy decisions over recent years that have impacted upon schools’ entry policies, rather than just the desire to do what is in the best interests of students. Such behaviour by schools might not have been anticipated and, indeed, may be an unintended consequence of policy change, as can often be the case during education reform (e.g. Hodgson & Spours, 2006). The following section aims to explore this issue further by examining the guidance given to schools regarding early entry.

**Guidance and policy on early entry**

In the past, any guidance and policy related to early entry appears to have been focused on highly able students, with Government documents supporting fast-tracking for these groups (DfES, 2001; 2005b). The guidance on early entry for wider cohorts appears to have been lacking though until more recently. During the reform of the GCSE mathematics qualification for first teaching in 2010, QCA (2009) published a document titled ‘Changes to GCSE mathematics’ that referred to early entry, stating that,

> “Candidates who take GCSE early and achieve a lower grade than A* are less likely to continue their study of mathematics post-16 than students who achieve their full potential in mathematics at age 16. In other words, for candidates who may achieve lower grades through early entry, it would be better to delay entry and give them a richer experience of mathematics and the opportunity to achieve a higher grade”.

Despite this document suggesting that early entry in GCSE mathematics should only be reserved for the most able students, the trends have continued in the opposite direction.

Currently, there appears to be no specific guidance regarding early entry available to schools in England via Ofqual or the Department for Education. Indeed, the only obvious mention of early entry on the Ofqual website (www.ofqual.gov.uk) is in a frequently asked questions section relating to the changes to GCSEs due to be implemented from 2012. Here, it is simply stated that early entry to GCSE is permissible in the new linear structure. This position is re-iterated by information on the DfE website (DfE, 2012), although here it indicates that early entry should only be used in certain circumstances,

> “Exams taken at the end of the course will not necessarily be taken at the end of year 11/Key Stage 4. If appropriate, pupils can still complete full GCSE courses before then. However, there has been a significant increase in the number of pupils being entered early for GCSE exams in recent years, and statistics show that this may not help pupils achieve their full potential. Teachers should be sure that early completion of GCSEs is right for individual pupils”
To support this guidance, the DfE have recently published a report exploring the potential effects of early entry on attainment in GCSE English and mathematics, with the aim of raising awareness of the issues surrounding early entry to key stakeholders (DfE, 2011). Again, this report iterates the need for careful consideration of the potential effects of early entry on individual students. Following the publication of this report, the current Education secretary has requested advice on how the trend for early entry can be discouraged in a letter to the Chief Inspector at Ofsted (Gove, 2012c). Whilst the letter outlines support for early entry of the most able students, wholesale early entry is described as, “a damaging trend that is harming the interests of many pupils”.

Given the lack of any strong guidance on early entry over recent years, it is perhaps not surprising that, in response to policy changes, early entry has become more common. It appears that efforts are now underway to reverse this trend and it is possible that stronger guidelines and regulations will be published in due course, or, that further guidance may be associated with the new GCSE qualifications due to be introduced for teaching from September 2015 (Gove, 2013). Such efforts are likely to require an understanding of the potential effects of early entry, which is explored in the following section.

**What are the effects of early entry?**

Currently, there appears to be limited empirical evidence exploring the effects of early entry at GCSE, despite much speculation in the subject communities and the media regarding what are mainly perceived to be negative consequences. Whilst the effects of early entry are arguably most significant for the students themselves, they are also likely to extend beyond this, with implications for other key stakeholder groups including teachers, schools and awarding bodies. Such effects are likely to be both positive and negative and the following section aims to outline the consequences of early entry for each stakeholder group. Since much of the literature relating to early entry concerns GCSE mathematics, it is this subject that is the main focus.

**The effects on students**

*Attainment*

Perhaps the most significant consequence of early entry for students is the effect it may have on their attainment, as it is this that is likely to influence their future progression to post-compulsory education, further education and employment. A number of sources have argued that early entry is likely to have a detrimental effect on attainment, with critics suggesting that early entry can result in students achieving a lower grade than they would otherwise be capable of (ACME, 2011; DfE, 2011; Winter, 2001; Noyes, Drake, Wake & Murphy, 2010). In turn, this could affect a student’s ability to gain access to post-16 and university level education, where certain courses and Universities require the highest grades at GCSE as well as A-level (Henry, 2008; Paton, 2010; Cookson, 2012).

Despite there being limited empirical evidence at present concerning the effects of early entry on attainment, a report by the DfE exploring the June 2010 GCSE examination data offers some insight (DfE, 2011). This analysis revealed that students who entered early were less likely than those entering at the end of year 11 to achieve the highest grades (A*–B) in GCSE English and mathematics. Notably, this analysis did not control for students’ underlying ability (which may not have been comparable between the two groups); however, further analysis revealed that of the students who achieved levels 4 and 5 at KS2, the proportion achieving the highest grades at GCSE (A*–B) was greater amongst those who did not enter early. Whilst this does not account for any differences in the standard of teaching that the students received and how this might have affected their performance, it does suggest that entering students early may have a detrimental effect on attainment. This assertion is supported by evidence concerning early entry
at KS3; here, early entry resulted in fewer students progressing to the highest levels of attainment in English and mathematics, despite more students making the ‘expected’ level of progress (Node, Rutt, Schagen & West, 2007). This suggests that early entry may result in students not achieving their full potential, a view shared by anecdotal evidence from the teaching community. For example, a case study exploring learning trajectories in 14-19 mathematics revealed that one school rejected early entry as they believed it might risk achievement of the highest grades (Noyes & Sealey, 2011); it is important to note, however, that such beliefs might not be representative of the wider teaching community.

**Progression and access to further education**

The potential for under-achievement following early entry is likely to have several knock-on effects for students, perhaps most significantly on their future progression in a subject and their access to further and higher education (e.g. see Paton, 2010; Cookson, 2012). With regard to mathematics, it is argued that students who under-achieve through entering early could be put off studying mathematics related courses in post-16 education (ACME, 2011). This effect could be particularly acute for students who achieve below a grade A at GCSE, given that students are more likely to continue to A-level mathematics if they have achieved a grade A or A* (QCA, 2009). This premise is supported by evidence showing that whilst almost 75% of students who achieve an A* at GCSE continue to study mathematics in post-16 education, this figure drops to 35% of those achieving a grade A and 5% of those achieving a grade B (DfE, 2011). Hence, students who enter early, but achieve lower grades, might not continue studying mathematics or mathematics related courses in the future, potentially to their detriment and to the detriment of the wider society (The National Centre for Excellence in the Teaching of Mathematics, 2011), particularly given the well documented shortage of mathematics specialists in the UK (Noyes, 2009; Noyes, Wake & Drake, 2011). This could particularly be the case in schools whose entry policies for A-level mathematics courses require at least a grade B at GCSE (see Noyes & Sealey, 2011).

**The effects on learning**

Whilst there are no doubts about the importance of the grade that a student receives, it is also worth noting that this grade is only a snapshot of what they can achieve at a particular time. Hence, it is possible that early entry could result in positive outcomes in terms of students’ learning, even when they have achieved a lower grade than they might have a year later. For example, students who follow an enriched curriculum following early entry and study additional material might have learnt more by the end of year 11 than their peers who did not enter early. As such, a lower grade might not necessarily be a reflection of what a student knows and can do by the end of year 11, despite it having negative connotations.

The use of early entry for certain subjects is likely to have other implications for students’ learning, the outcomes of which might be both positive and negative. For example, early entry for particular subjects might be beneficial, as it can allow students to focus upon one subject in greater depth for a certain period of time. Furthermore, early entry might impact positively on students’ learning the following year, allowing them to apply the knowledge they have gained when studying other subjects. Conversely, however, concentrating on one subject could be detrimental, as it may result in less synoptic learning and less transfer of knowledge between subjects. These effects are likely to depend upon which subjects students study and when, and the subject content itself; hence they are difficult to quantify.

The effects of early entry on a student’s learning will also depend upon the provision that schools offer their early entry students during the following year (i.e. in year 11). In some situations, schools are reported to have poorly thought out plans for students who enter early or offer no provisions at all (Pope & Noyes, 2011), meaning that students may experience a gap in learning during year 11 that is likely to influence their intentions to study certain subjects in
post-compulsory education and their subsequent performance (ACME, 2011; DfE, 2011; Noyes, Drake, Wake & Murphy, 2010). Other schools, however, report well laid plans for supporting students who have entered early, involving enrichment, acceleration to A-level or additional qualifications being studied (e.g. see Noyes & Sealey, 2011; Bond, Green & Jaworski, 2009). Within individual schools, the provision for students is also likely to differ depending upon a students’ attainment at GCSE, in terms of the actual grade they achieved. A survey of 368 mathematics departments in summer 2010 revealed that whilst the high attaining students typically had access to additional mathematics at a higher level following early entry, this provision declined in line with students attainment at GCSE, with the majority of grade D and E students studying the same mathematics or more mathematics at a similar level following early entry (Noyes, Drake, Wake & Murphy, 2010). Perhaps of more concern, however, was the number of students who had no access to mathematics following early entry; of the students who achieved a grade A through early entry, almost 10% studied no further mathematics, a figure that rose to 23.1% for grade C students (Noyes, Drake, Wake & Murphy, 2010).

The potential for students to experience a gap in learning following early entry could be particularly detrimental if it is coupled with them not studying the whole GCSE programme of study (DfE, 2011); it is argued that schools might be tempted to prioritise certain aspects of the curriculum in order to ensure that students secure a grade C (ACME, 2011; IMA and LMA, 2011). Whilst this is likely to have a detrimental effect on students who study mathematics related courses in post-16 education, more importantly, it is also likely to result in schools not providing students with the full education to which they are entitled (ACME, 2011). This effect could be compounded by teachers focusing on passing the test rather than ensuring that students understand the mathematics that they are being taught (DfE, 2011). For example, it is argued that students who enter mathematics early have a ‘right answer’ attitude, thus face difficulties when required to investigate or question (Winter, 2001).

The effects of re-sitting

Whilst it is clear that early entry could have a negative effect on students’ attainment, learning and future progression, it is also claimed that early entry is likely to influence less tangible factors such as a student’s motivation and attitude. Such effects are likely to be associated with the propensity for students who enter early to re-sit, particularly those who are predicted to achieve a grade C/D (Noyes, Drake, Wake & Murphy, 2010). As noted by the DfE (2011), a large proportion of students who took GCSE English and mathematics early in 2010 re-look at the end of year 11, with almost half improving their final grade (45%). Evidently, some students will benefit from the opportunity to re-sit; indeed, for students who lack self-esteem early entry might give them the motivation and confidence to go on and improve their grade the following year (Association of School and College Leaders, 2011). Furthermore, re-sitting might allow borderline candidates the opportunity to engage with more difficult material and re-sit at a higher tier (e.g. see Curtis, 2009). Nonetheless, there are also likely to be negative consequences. It is argued that entering students repeatedly for GCSE mathematics is likely to negatively affect their perceptions (Noyes, Drake, Wake & Murphy, 2010), thus causing them to be disinclined to study mathematics related subjects in post-16 education (The Mathematical Association, 2010).

Although re-sitting may result in negative effects on students’ attitudes and motivation, perhaps of more concern are instances involving students who under-achieve in their first attempt but are not given the opportunity to re-sit and improve their final grade. The opportunities for students to re-take following an early entry seems to vary quite considerably between schools; within a sample of 692 secondary schools in England in 2011, 35% of respondents reported that students who entered early and achieved a grade C would ‘sometimes’ get a chance to re-take, with a further 6% reporting that students would not be allowed to re-take (Centre for Analysis of Youth Transitions, 2011). The opportunity for students to re-take is also likely to be associated with students’ attainment in their early attempt at GCSE; evidence suggests that it is those who
are close to the C/D borderline who are more likely to re-take following early entry (Noyes, Drake, Wake & Murphy, 2010). As well as students not being given the opportunity to re-sit, there are also likely to be those who are not motivated to improve their final grade, despite being given the opportunity to do so (Pope & Noyes, 2011). Both these situations are likely to result in under-achievement that could negatively influence future progression and students’ attitudes and motivation.

The positive effects of early entry

Despite the perceived negative consequences of early entry for students, there are likely to be some benefits in certain situations. As discussed previously, early entry can be beneficial when used to stretch the most able students, by allowing greater breadth of study and curriculum enrichment. Furthermore, early entry and enrichment might be beneficial to less able students, providing them with greater competency in a subject through studying additional material, despite them perhaps not achieving the highest grade they are capable of. Early entry may also be beneficial when there is a risk of a student leaving or being excluded before the end of compulsory education (ACME, 2011; Pope & Noyes, 2011), thus enabling students to gain a qualification that they otherwise might not have.

The effects for schools

In addition to the effects of early entry on individual students, there are also likely to be wider issues for schools and teachers, including those relating to logistical difficulties and resources. One issue that has featured already in this review is the need to provide suitable provision for students who have completed their GCSE early and for students who need to re-sit after entering early. Both these situations are likely to have implications for timetabling arrangements in schools. In the former case, some students may go straight on to study at A-level following early certification, which has the potential to cause timetabling difficulties if the A-level timetable does not fit with their other commitments at GCSE (Noden, Rutt, Schagen & West, 2007). Equally, the need to re-sit or the study of an additional enrichment qualification might interfere with the scheduled timetabling of other GCSE subjects. In a study exploring mathematics pathways in year 11, one school reported discontinuing early entry as students had difficulties re-taking GCSEs and studying an FSMQ alongside this (Bond, Green & Jaworski, 2009). Furthermore, in a survey of 368 mathematics departments, a number of teachers rejected early entry as it resulted in an increased workload for teachers and timetabling restrictions (Noyes, Drake, Wake & Murphy, 2010). The logistical issues associated with early entry are likely to be intensified when students transfer between teaching groups or schools and are at different levels to the students that they are joining. This might result in students being ahead of their peers and thus repeating material, or indeed trying to catch-up or being unable to transfer between ability sets (Noden, Rutt, Schagen & West, 2007).

Alongside the logistical problems associated with early entry there are also likely to be resource implications for schools, given the prevalence of re-sitting by early entrants and the associated time and monetary costs (DfE, 2011). As stated by ACME (2011), increased expenditure on examination fees resulting from early or multiple entry would be a poor use of resources, particularly considering the continuing rise in the expenditure by schools on examination fees each year (Ofqual, 2011a). This comes at a time when the education budget is under pressure (Chowdry & Sibieta, 2011), with many schools reporting decreasing budgets and assistance from local authorities (e.g. Richardson, 2011).

The effects for awarding bodies

Whilst the effects of early entry are likely to be most significant for students and schools, there are also potential implications for awarding bodies, the main issue being related to standards. The process of setting and maintaining standards by awarding bodies relies on a number of
indicators as detailed in the Code of Practice (Ofqual, 2011b), one such feature being the use of statistical information to inform the expected outcomes in a particular subject (Ofqual, 2011c). This process is most successful when the cohort is large and remains ‘stable’ over time, meaning that the same type of candidates are sitting the qualification in each examination series. Hence, there are obvious issues should early entry continue to increase as this is likely to compromise the stability of the population and the reliability of any statistical indicators. However, this is unlikely to be problematic when students are certificating early in subjects such as GCSE English and mathematics, as the overall cohorts are large, meaning that there are sufficient numbers upon which to base the statistics without the inclusion of early entries.

Aside from the effects on standard setting, there are also likely to be financial implications of early entry for awarding bodies, given that it is likely to promote repeated entry due to the greater opportunity for students to re-sit. This is likely to result in increased income from examination fees for awarding bodies, a topic that has recently become more prominent in the media due to the increasing expenditure by schools on examination fees (e.g. see Paton, 2012). Thus, there may be perceptions that awarding bodies support the use of re-sitting and early entry, as it is a means of them generating extra income, despite concerns about these practices being voiced by such bodies (e.g. Hall, 2012).

In summary, there are a number of perceived effects of early entry for several stakeholder groups, inevitably leading to the question of why such effects occur. This will be explored in the following section and is likely to be informative for both the debate on the practice of early entry, as well as the debate on the use of modular assessments.

**Why might there be such effects of early entry?**

At present, the causes behind any effects of early entry have received limited attention in the literature, although a number of sources have suggested that maturity is likely to be influential. In addition, teaching practices could also be important and are discussed below.

**Maturity**

Maturity has often been cited as one potential source of any negative effects of early entry on attainment; that is, that students who enter early lack maturity and thus tend to under-perform. When referring to maturity, a distinction can be drawn between different aspects of maturity that are likely to be influential; in this case, cognitive maturity and emotional maturity. The potential for students who enter early to lack cognitive maturity and not be developmentally and/or intellectually ready to sit assessments has often been cited as an argument against modular assessments, with critics arguing that students who sit modules early might not be at the same stage of maturity as older students (Clarke, 1996; Taverner & Wright, 1997). Thus, younger students might be at a disadvantage, resulting in them falling below the expected standard (Vidal Rodeiro & Nádas, 2012); not because they are not able enough or prepared for the assessments, rather, that they have not developed the skills required of them to engage with and respond to the assessments as required. Although such criticisms have typically been levelled at modular assessments, the same effects could be true for students who certificate at GCSE early. Alongside the effects of cognitive maturity there may also be effects of emotional maturity, depending upon a student’s ability to cope with the burden of assessment at a younger age. However, given that students in England are exposed to assessment throughout their school years, the effects of emotional immaturity might be expected to be minimal.

In addition to students lacking the maturity to sit assessments early, there are also concerns that students might not be developmentally ready or able to engage with the subject content as required, which is likely to affect their learning. Indeed, this was observed in a study exploring the effects of early entry at KS3, with teachers reporting that some students were not
developmentally ready to tackle the GCSE programme of study early (Node, Rutt, Schagen & West, 2007).

The effects of maturity are likely to be complex and difficult to quantify. Furthermore, they are likely to depend upon the subject content and the assessment mode, i.e. the question and response types, thus, they are unlikely to be consistent across subjects. This is supported by research exploring the outcomes for 15 and 16 year old students sitting GCSE modules in geography, psychology and sociology in June 2011 (Heinrich & Pinot de Moira, 2012). Once prior attainment at KS2 had been controlled for, comparisons of the performance between the two age cohorts revealed no consistent trends; for some modules, the 16 year olds outperformed their younger peers, whilst in other modules, the opposite was observed. Notably, this analysis was undertaken at module level, rather than at subject level, so does not provide evidence concerning the effects of early certification, which is the main focus of this review. Nonetheless, it suggests that at module level, the relationship between early entry, maturity and performance is not straightforward.

Given the limited evidence concerning the effects of maturity on performance in relation to early entry, it is worth considering another body of literature that is likely to be informative; that is, the literature relating to season of birth effects. Here, a number of studies have reported that, on average, younger students in an academic year perform worse than their older peers (see Sykes, Bell & Vidal Rodeiro, 2009, for a review of the literature). Such effects are most notable in primary education, but have also been shown to persist through to GCSE and A-level, albeit at a much reduced rate. Whilst there are competing explanations for such effects, the evidence has tended to point towards there being an effect of maturation on performance, over and above the effects of the length of schooling that a student receives (Sykes, Bell & Vidal Rodeiro, 2009), with the younger students being at a disadvantage as they lack the maturity of their older peers (the additional effects of teachers’ expectations are discussed below). Whilst a general effect of maturity on performance is therefore apparent, such effects are not necessarily consistent across different subject types and assessment modes, and might be compounded by younger students developing lower expectations regarding their performance over time.

**Teaching and how students are prepared for assessments**

A second factor that might explain any effects of early entry on performance concerns the way in which students are prepared for assessments. Whilst there is no firm evidence to suggest that students who enter early are treated differently to older students in terms of the way that they are taught, there are concerns that they might not access the whole KS4 programme of study prior to sitting their GCSE early (ACME, 2011; IMA and LMA, 2011; DfE, 2011). This is likely to influence their performance, possibly resulting in under-achievement. Furthermore, there are also concerns that 'teaching to the test' might be particularly prevalent when students are entering early, as they have less time to prepare for the assessments (DfE, 2011) and are potentially being coached to try and achieve a grade C.

Related to the issue of maturity, there have also been suggestions that the expectations of teachers could be influential. It is hypothesised that teachers might not fully take account of the maturation deficit of younger students when assessing their ability, hence might treat them differently to the more mature students (see Sykes, Bell & Vidal Rodeiro, 2009, for a review of the literature). Whilst such effects would arguably be more pronounced in younger children than at GCSE level, it is possible that teachers could underestimate the ability of their younger students, which, in turn, could have a detrimental effect on their attainment. As this is largely speculative, further evidence is required, particularly in relation to how students who enter early are taught and prepared for assessments and whether this differs to those sitting the assessments at the end of year 11.
What are the potential future implications for early entry?

Although this review has focused on early entry to GCSE there are likely to be wider issues; these include the implications of early entry to other qualifications and how future changes and developments to the assessment system might impact upon early entry. In addition, evidence regarding the early entry debate (particularly in relation to the issue of maturity) is likely to be informative for future test development and standard setting.

Early entry to other qualifications

Although early entry is most prevalent at GCSE, it is possible that early entry could be used for other qualifications as well. There are some anecdotal reports of students beginning the AS programme of study early (i.e. in year 11) following completion of a GCSE in year 10 (e.g. see Mathematics in Education and Industry, 2009), although at present there are no reports of this practice or early certification being rife at A-level. An early start to A-level could be beneficial for certain subjects such as mathematics as it allows students three (rather than the usual two) years to complete their A-levels (Mathematics in Education and Industry, 2009), thus aiding the transition from GCSE to A-level and encouraging participation post-16. This is supported by anecdotal evidence from schools in Scotland, where students who studied for their Higher qualifications over three years reportedly out-performed their peers who had studied over two years (Hepburn, 2007). Such practices might also be viewed favourably by higher education institutions, as it is likely to involve students studying subjects in greater depth and breadth.

The differing trends of early entry at GCSE and A-level could be due to the different purposes to which the results are put or due to differences in funding, meaning that there might be less incentive to enter students early at A-level. Whilst GCSE results are important for school performance tables, the accountability regime is different at A-level. Furthermore, unlike at GCSE, there is no particular grade at A-level that is deemed to be a 'good' pass; instead, individual students will require different grades to access University level education, meaning that there is less pressure on teachers to ensure that a whole cohort of students achieve above a certain grade. Whilst some schools and teachers are no doubt judged by the results of their A-level students, there is likely to be less pressure at this level from outside sources. Nonetheless, there is no reason to suspect that the effects of early entry to other qualifications would not have the same effects as early entry to GCSE. Furthermore, the same issues may be relevant to other qualifications should the qualification system change in the future.

On-demand testing

One way in which the assessment system in England is likely to evolve in future years is the potential for an increase in the use of on-demand testing, defined in its purest form as the "provision of assessments whenever and wherever a customer (examination centre, teacher, student) wishes to take that assessment" (Wheadon, Whitehouse, Spalding, Tremain & Charman, 2009). Currently, on-demand testing is not used in the UK for high stakes examinations (see Wheadon et al, 2009, for a discussion of the possibilities and challenges), although the issue has been on Ofqual's agenda in recent years (e.g. see Wheadon et al, 2009; Boyle, 2010; He, 2010). The implementation of an on-demand system of assessment would support the desire for increased personalisation of learning by the previous Labour Government (Miliband, 2004; 2006), however, by allowing students to sit assessments when they were deemed to be ready.

9 Note that this is only anecdotal evidence and does not control for factors such as the underlying ability of the students.
Given that there are different types of on-demand testing (see Wheadon et al., 2009), the implications for early entry in this system might not be immediately obvious. However, assuming that in an on-demand system there would still be the expectation that certain qualifications would be used for specific purpose (i.e. assessments might still be required for students prior to completing compulsory education or for gaining access to university level education) and that assessments would still be developed with the intention that they would be sat by students at a certain age, then the use of on-demand testing is likely to have implications for the practice of early entry. On one hand, on-demand testing could be considered as facilitating early entry, as assessments would be available on a continual basis (as opposed to them being available for a certain number of examination series each year), thus raising further concerns regarding the effects of maturation and whether students are developmentally ready to take assessments (despite them perhaps having covered the appropriate programme of study). Conversely though, on-demand testing might have a beneficial effect, as it might encourage students to be entered when they are ready, resulting in a more appropriate use of early entry as opposed to whole cohorts being entered early. Indeed, on-demand testing would provide more opportunities for students to be entered at different time points (rather than having the pressure of entering a specific examination series) and might encourage greater personalisation of early entry.

Future implications for the assessment system

At the time of writing, significant changes to the examination system were announced, including the reform of GCSE qualifications for first teaching from September 2015 (Gove, 2013). As yet, the format of these qualifications is unclear; hence, it is difficult to predict the potential effects on early entry, or, indeed, whether early entry will be permitted in this new structure. Nonetheless, it is likely that these changes will encourage greater diversity in the type of students who are sitting the same assessments, given that students not reaching the expected level for these qualifications at age 16 will be expected to sit them at a later stage. This might result in large numbers of students of (potentially) many different ages sitting the same assessments. Given that different age cohorts might engage with certain subject content more successfully than others, or indeed certain topics or question types, the issue of maturity is likely to be of relevance, both for developing future assessments and the subsequent setting of standards.

Summary

To summarise, over recent years there have been large increases in the proportion of students who are entering GCSEs early, particularly for English and mathematics. These increases appear to have stemmed largely from policy changes at a Government level that, in turn, have increased the pressure on schools to ensure that students achieve a certain grade in particular subjects. Although there is limited evidence at present, the effects of early entry are mainly deemed to be detrimental, particularly for students. Further research is evidently needed to explore these effects further, as well as the source of such effects.
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