

PQA and the exam system

An AQA briefing paper April 2021

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EXECUTIVE SUMMARY

- There has long been frustration with the operation of the university admissions system in the UK. In particular, there is strong evidence that aspects of the current system undermine social mobility given outcomes for disadvantaged students.
- Different models of Post Qualification Admissions (PQA) to university have been proposed over the years involving changes to the timing of the student application process and key milestones, such as when Year 13 students sit their exams or receive their results.
- As an education charity and the largest provider of A-levels in England, AQA supports the
 principle that students should make decisions about university courses with as much
 information as possible, and fully supports reforms to enable post-qualification admissions
 so that students make can decisions about university with their exam grades in their hands.
- However, implementing PQA through significantly compressing the AS and A-level marking and awarding period may pose risks for students, centres and exam boards relating to late results, marking quality, examiner experience, examiner recruitment, breadth of curriculum and system resilience.
- It would be wrong to think these risks to the AS and A-level marking and awarding process
 could be addressed through increased use of technology. The vast majority of exam scripts
 are digitised within days of being posted by centres, and the rest of marking and awarding
 is a digital-first process.
- AQA believes that adopting PQA is likely to be more successful if the required changes and
 implementation risks are spread across different stages of the university admissions
 process. A 'whole system' view of post-qualification admissions is needed that takes
 account of Year 13 teaching, careers advice, summer exams, marking, awarding and the
 university timetable. If a small amount of time is released at every stage of the process, a
 lot can be achieved.
- In particular, the DfE should consider:
 - Changes to the AS and A-level exam timetable that may reduce the time available for student revision, but would allow students to receive university offers after they have received their grades
 - Changes to university timetables so that all institutions begin first-year teaching in October as many already do, rather than September.
- AQA also believes that DfE should consider other interventions, such as improved and targeted information, advice and guidance for students, to encourage and support social mobility. The government has more levers available to it than just PQA to support student decision-making, and it is unlikely that simply adopting a PQA model of university admissions will fully address challenges relating to university participation and social mobility.

1. INTRODUCTION

1.1. Background

The Department for Education (DfE) launched a consultation on Post Qualification Admissions (PQA) in January 2021¹ – the latest chapter in a long debate around reforming admissions to university in the UK.

AQA is an education charity and the largest provider of A-levels in England. We are committed to students realising their potential and doing the best they possibly can with the grades we award them. For this reason, AQA supports the principle that students should make decisions about university courses with as much information as possible in their hands, including their final exam grades.

Different models of PQA have been proposed over the years. Most involve moving A-level exams, A-level results day or the start of the university academic calendar.

Given the costs and disruption this would involve, it is important that any reform of UK university admissions is proportionate and takes account of the risks involved.

The specific risks arising from PQA for the exam system have often been poorly understood – reflecting the lack of information many stakeholders have had regarding the processes involved in marking and awarding A-levels.

This AQA briefing paper addresses this gap by lifting the lid on what we do each summer at different stages of the marking and awarding process, and what this activity means for students.

AQA Education (AQA) is a registered charity (number 1073334) and a company limited by guarantee registered in England and Wales (number 3644723). Our registered address is AQA, Devas Street, Manchester M15 6EX.

¹ Department for Education (2021) Post-Qualification Admissions Reform: Government consultation, London

2. PQA: UNDERSTANDING THE RATIONALE AND OPTIONS

2.1. The case for change

Interest in PQA reflects longstanding concern that the current HE admissions system in the UK is sub-optimal and may disadvantage particular students.

For example, a 2020 study of the UK's university application system found that only 16% of applicants' predicted grades are accurate with 75% of applicants having over-predicted grades.² However, high-attaining, disadvantaged students are significantly more likely to receive pessimistic grade predictions, and under-predicted candidates are more likely to enrol in courses for which they are over qualified.

In its consultation document, the DfE sets out three broad rationales for adopting PQA. These rationales focus on social mobility, but also admissions practices observable in the UK Higher Education sector. These rationales comprise:

- A) The inaccuracy of predicted grades
 - a. Adverse impact on high-achieving disadvantaged students
 - b. Undermatching
- B) Simplicity and transparency
 - a. The mismatch between course grades advertised and the grades accepted
 - b. Complex additional admissions processes
- C) Unconditional Offers
 - a. The risk of reduced attainment and university continuation rates
 - b. The impact on disadvantaged students

Several observations can be made:

Availability of alternative policy option besides PQA

For each of the rationales identified by DfE, PQA represents only one option to address the issue and alternative policy 'levers' are available that could be deployed alongside or instead of PQA.

For example, undermatching – whereby some groups of students may be more likely to take university places with lower entry requirements than the qualifications they have achieved – could be addressed through a range of other interventions, such as increased online and face-to-face mentoring, Year 12 placement schemes for students at elite universities, as well as targeted and improved information and advice.

The inaccuracy of predicted grades, particularly in relation to certain types of students, could be addressed through improved training and guidance for teachers, targeted interventions for centres with a history of under-prediction, the provision of data tools for teachers to use, etc.

This suggests the government will need to carefully consider the costs and risks associated with PQA against the availability of alternative policy interventions to address the problems in its consultation on PQA.

Targeting of policy interventions in HE

Adopting PQA may involve significant disruption to teachers, centres and the exam system. It is therefore striking that a large part of the rationale for adopting PQA reforms set out by DfE focus on issues and practices located wholly within the university sector.

² Murphy, R; Wyness, G; (2020) Minority Report: the impact of predicted grades on university admissions of disadvantaged groups. Education Economics , 28 (4) pp. 333-350

For example, the provision of unconditional offers by universities, and the mismatch between course grades advertised and the grades accepted, may best be addressed by measures and interventions focused on the Higher Education sector itself rather than measures focused on changes in the school and exam systems.

This analysis suggests that policymakers will need to ensure that the costs and risks resulting from the adoption of PQA for centres and the exam system are proportional relative to the availability of other policy interventions more highly targeted at the HE sector.

2.2. Options for implementing PQA

Over the years, different models of PQA have been proposed involving changes to the timing of the different steps students take in moving from A-levels to university. These relate to:

- The university application process comprising applications, offers and acceptances
- The timing of key milestones, such as when Year 13 students sit their exams or receive their results.

In particular, different variants of PQA have been proposed involving changes to the timing of:

- The start of the A-level exam timetable by reducing time available for teaching and revision
- The duration of the A-level exam window by bringing A-level exams forward within the annual exam timetable, or putting more exams on the same day
- A-level results day reducing the time available to exam boards to undertake marking and awarding
- The start of first-year undergraduate teaching which current varies widely across
 institutions, and would for some universities mean starting later and reducing the time
 available for settling in, etc.

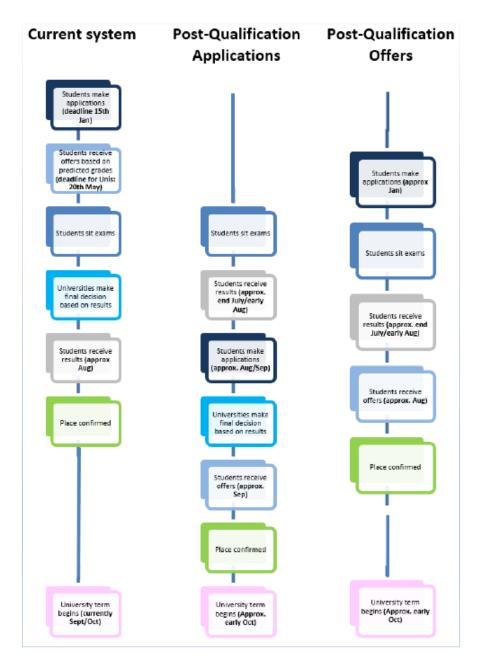
The practical and logistical difficulties involved in changing these milestones has long proven a barrier to change.

The DfE consultation on PQA published in January 2021 proposes two specific models of PQA:

- Model 1: 'post-qualification applications and offers'
- Model 2: 'pre-qualification applications with post-qualification offers and decisions'

The changes required by these two models are focused on the timing of A-level results and the start of first-year undergraduate teaching. Changes to the timing of the A-level exam window are not proposed.

The DfE suggests that these models would involve the timetables set out in the diagram below.



Both of these models propose moving A-level results day forward to the end of July or early August.

With no accompanying change proposed to the timing or duration of A-level exams, this would require the current A-level marking and awarding window to be compressed. The implications of such a change for students, centres and exam boards are therefore explored below.

3. WHAT WOULD PQA MEAN FOR MARKING AND AWARDING?

3.1. What do exam boards do between exams and results?

Each year, students apply to university on the basis of a range of qualifications, including A-levels.

The scale of the qualification and exam system is vast. Across the exam system, during 2019, the number of Ofqual-regulated A-levels and AS-levels awarded were 720,225 and 98,745 respectively.³

As the largest provider, AQA awarded 344,120 A-levels in 2019, having marked 1,010,342 scripts. At AS-level, AQA awarded 53,395 qualifications having marked 104,432 scripts. To do this, AQA employed over 6,800 markers all of whom are trained to mark to a standard determined by senior examiners.

Students, teachers and the wider public often have little knowledge of what exam boards do between completed exam scripts being sent off by schools and results being issued.

In fact, this period represents by far the busiest period of the year for exam boards who undertake a complex, regulated, multi-stage process overseen by Ofqual to ensure that students receive valid, fair and correct grades.

At a high-level, this process involves:

- Script scanning digital scanning of paper scripts received from centres so they can be electronically distributed to examiners for onscreen marking
- Standardisation senior examiners mark and review a selection of scripts in order to exemplify the marking standard and marking scheme for subsequent use in training the examiner workforce
- Training of examiners in the marking standard for that year
- Marking of scripts by examiners
- Awarding senior examiners meet to confirm the grade boundaries and sample marking close to grade boundaries. Awarding meetings for most individual AS and Alevels stretch over two days.
- Checks a multitude of processes to ensure that the right result for all awards can be issued on time.

The flowchart below shows the timetable of activities undertaken by AQA between a typical A-level exam and A-level results day. It is a process with a number of moving parts – some logistical and others based on the hard work of examiners.

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³ Ofqual (2020) Annual Qualifications Market Report: 2019 to 2020 academic year

Exam Day

•Exam Day Candidates sit exam, papers are collated by centre and posted to scanning bureau

Papers scanned

• Candidate papers scanned onto marking platforms (4 days) Scanning bureau individually scans candidate papers onto marking platform and matches each one with candidate entries

Script selection

•Script selection (2 days) Senior examiners mark and select candidate papers to exemplify the marking standard and marking scheme, for use in training the examiners

Pre-prestand meeting Pre-pre-standardisation meeting with lead examiner (2 day) Senior examiners and their assistants meet to review standardisation training material and standardise the assistant lead examiners

Pre-stand meeting Pre-standardisation meeting with Team Leaders (2 day) Team Leaders are trained using the standardisation materials and standardised

Seed selection •Seed selection (2 days) Senior examiners and some assistants select candidate responses that will be used to exemplify the standard and quality assure the examiner team during live marking

Set-up day Set up day (1 day) Marking platform set up review meeting and On-line Standardisation input onto marking platform

Examiner Standardi sation •Standardisation meeting or online standardisation window opens (2 days) examiners are standardised to this year's marking scheme using the scripts selected by senior examiners

Live Marking •Live Marking starts (24 days) Examiners start marking their quota of candidate papers as well as quality assurance checks (seeds), supported by their team leader. Marking Team monitor quality of marking.

Subject Distributi •Subject distributions invoked on average scheduled about 10 days after marking ends. When 95% of marks are complete the results are distributed against grade boundaries

Awarding

•Award meeting (2 days) starting 2 days after subject distributions, senior examiners meet to confirm the grade boundaries and sample marking close to grade boundaries

Checks

•Checks made after last Award - 20 days after Awarding end – used for checking and processing results, involving over 100 separate essential tasks and checks including: 100% mark chasing and verification checks, grading, loading, preparation and testing of EDI files

EDI & Results

- •"Electronic data interchange" (EDI) release of results to schools
- •RESULTS DAY

Beneath this headline process, various other quality and logistical processes take place to deal with issues that recur every year. These include:

- Scripts for which the exam board does not have an entry or the candidate information on the script doesn't match an existing entry
- Verifying that any scripts with scanned additional pages are checked to ensure all have been fixed to the correct question and all work has been seen and marked
- Dealing with 'missing marks', which is a complex process and frequently involves contacting centres for confirmation of whether a candidate was present for an exam.

3.2. What are the risks of compressing the marking and awarding process?

Various models of PQA, including those put forward by the DfE in January 2021, propose compressing the duration of the marking and awarding process to varying degrees.

Significantly compressing this process would pose a number of risks with consequences for students and centres:

Late results

If the AS and A-level marking and awarding timetable is compressed too much, there is a risk that results for some students will simply not be available on time by Results Day. This would have consequences for progression for affected students, as well increasing the anxiety and stress of all students.

Marking quality

Significantly reducing the time available for standardisation, training and marking would be likely to impact the quality of marking, particularly for those AS and A-levels that are typically more challenging to mark.

Although some examiners can mark at a faster pace than others, this is usually dependent on experience, training and aptitude, and there is a finite limit to how fast even the most efficient of examiners can mark while ensuring the necessary quality in their work.

The risks to marking quality from reducing the marking timetable would compound each other. For example, if tighter deadlines resulted in lower marking quality, it is likely that more examiners would be withdrawn from marking following ongoing quality assurance checks to ensure they are marking to the correct standard. More examiner time will therefore be taken up by re-training before they can potentially be redeployed for live marking. This reduction in capacity will in turn increase the workload and pressure on other examiners, creating follow-on risks relating to their marking quality.

Ultimately, a reduction in the quality of marking would be likely to result in an increase in the number of grade challenges exam boards receive each year, as well as a wider drop in the confidence of students that they have received the right grade.

Examiner experience

AS and A-level examiners represent the backbone of the exam system and are employed on the basis of their expertise in both their specialist subject and assessment. The majority are working teachers.

Although examiners are financially rewarded for their work, most examiners choose to take up the role to advance their knowledge of assessment and their subject, to support the education and fair assessment of students, as well as supporting their field of academic interest.

Examiners have a right to expect a positive experience, and not to be pressured or have unrealistic expectations placed on them. In short, the experience of examiners is important and substantial reductions to the AS and A-level marking window could undermine their experience.

It is for this reason that AQA examiners are provided with carefully determined marking 'quotas', which are set at a level we can reasonably expect an examiner to complete, to the required quality and by last date for marking. This varies depending on the length of the paper, complexity of the content and marking period.

• Examiner recruitment

Each year, exam boards must recruit sufficient examiners, i.e. an estimate of how many they will require based on uncertain entry numbers, and in addition, a buffer to take account of examiners who subsequently withdraw through illness, change of heart, etc.

Some subjects struggle to recruit sufficient examiners year on year, and therefore already pose risks to safe delivery.

If the experience of AS and A-level examiners in future declines owing to a compressed marking window and increased demand from exam boards, fewer examiners are likely to return and undertake marking in the following year.

However, recruiting new examiners requires training and induction, and have to be given a lower quota as they learn how to mark and the marking platform. New examiners require greater monitoring and supporting given uncertainties around marking ability, quality and whether they will be able to finish their quota in the required timeframe.

It is also worth noting that some examiners may complete marking for one specification before joining the panel for another specification. Shorter marking periods may mean examiners can be contracted to only one marking 'panel' and exam boards will need more new examiners to cover other panels.

Breadth of curriculum

Exam boards will only choose to offer specific AS and A-levels if they can be fully confident of being compliant with Ofqual regulation covering marking, awarding and results.

Different AS and A-level qualifications pose different levels of delivery challenge for exam boards. For some qualifications, significantly compressing the marking and awarding window may undermine their ability to deliver the qualifications while remaining compliant.

In this context, exam boards such as AQA may conclude that specific qualifications have to be withdrawn, which would in turn reduce choice and the breadth of curriculum students benefit from.

System resilience

In the context of disruption to the exam system in recent years, it is worth noting that a significant reduction in the AS and A-level marking and awarding window would reduce the resilience of the exam system, i.e. the flexibility and contingency built into the system to enable it to respond and adapt to unforeseen events or hostile conditions.

3.3. Could the risks of compressing the marking and awarding process be mitigated?

The previous section identified some risks to students and the exam system from significant reductions in the duration of the AS and A-level marking and awarding window.

Could these risks be mitigated? Two approaches are often identified in debate.

Greater use of technology

It is sometimes suggested that the AS and A-level marking and awarding window could be compressed through exam boards making increased or better use of technology.

However, this assumption is wrong. The marking and awarding process is already digitised as far as it can be. Although students complete exams using pen and paper, the vast majority of exam scripts are scanned and digitised extremely quickly within a matter of days of being posted to AQA by their centre. From that point on, the marking and awarding process is digital-first.

Indeed, as the flowchart above demonstrates, the largest segment of activity during the marking and awarding period is the actual marking by examiners, the vast majority of which takes place onscreen. As such, most of the AS and A-level marking and awarding process has already fully incorporated available technology, and the most time-consuming stage in the process remains the marking of student material by human examiners.

Although in future, it is conceivable that computers and Artificial Intelligence (A.I.) may take a greater role in marking, there is no prospect for this to occur in the short to medium-term given very considerable issues relating to both accuracy and public confidence.

Increased examiner payments

Could some of the risks associated with reducing the AS and A-level marking and awarding window be reduced by increasing the level of fees paid to examiners in order to recruit more?

Several observations can be made. First, financial reward represents only one of many reasons why potential AS and A-level examiners put themselves forward as examiners. As such, the supply of examiners will not necessarily increase in line with increased financial incentives.

Second, the market for potential AS and A-level examiners is finite given the limited number of qualified individuals, i.e. those with appropriate levels of subject knowledge and assessment. For this reason, increased payments to examiners will not necessarily increase the supply of potential examiners to be recruited.

4. CONCLUSION

4.1. Toward a whole-system view of PQA

There has long been frustration with the operation of the university admissions system in the UK. In particular, there is strong evidence that aspects of the current system undermine social mobility given outcomes for disadvantaged students.

AQA therefore supports the principle that students should make decisions about university courses with as much information as possible, and fully supports reforms to enable post-qualification admissions so that students can make decisions about university with their exam grades in their hands.

However, adopting a PQA model of university admissions will involve change to at least one part of the process that starts with students sitting their summer exams in centres, moves on to their papers being marked by exam boards and ends with them arriving at university in the autumn.

As the preceding section explored, AQA is clear that there are risks to significantly compressing the AS and A-level marking and awarding window, such as reductions in quality of marking, late results or certain qualifications being withdrawn.

This suggests that expecting all the change required to achieve post-qualification admissions to fall on the exam system and the duration of the AS and A-level marking and awarding window is unrealistic, and would concentrate excessive implementation risks in one place. Ultimately, it is not in the interests of students to address one set of problems by creating a different set of problems.

Any PQA reform is likely to be more successful if the required changes to timetables and milestones are spread across different stages of the university admissions process that begin with students sitting A-level exams.

This suggests that a 'whole system' view of PQA is needed that takes account of the timing of Year 13 teaching, careers advice, summer exams, marking, awarding and the university timetable whereby a model of PQA is implemented through small changes to all the different stages of this process. In particular, it suggests that the DfE should consider:

Changes to the AS and A-level exam timetable

Many centres use the summer term for Year 13 students to focus on revision, rather than teaching content for the first time.

Bringing forward the AS and A-level exam timetable within the summer term would reduce the time available for student revision, but would potentially allow these students to make decisions about university with their grades in their hands.

• Changes to university timetables

Many universities already begin first-year teaching in October. If the remaining universities that begin teaching in September were to align with these institutions, this would make a significant contribution to enabling PQA reforms to university admissions, supporting social mobility.

• Improved information, advice and guidance

As noted above, the government has more levers available to it than just PQA to support student decision-making.

In fact, given the challenges to social mobility arising from student decisions on whether to go to university and which institution to attend, it is unlikely that simply adopting a PQA model of university admissions will fully address these issues. The work of social mobility charities in mentoring and supporting disadvantaged students suggest that interventions need to begin as early as primary school.

AQA therefore believes that alongside PQA, the DfE should consider other interventions, such as improved and targeted information, advice and guidance for students, to encourage and support social mobility.

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