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# A-Level Food: The gap that remains: A research project on the impact of removing post 16 A-Level examinations for Home Economics and Food Technology in schools in England in 2016

**Louise T. Davies, Founder: Food Teacher's Centre UK; St Angela's College, National University of Ireland.**

## Abstract

This research project examines the impact of removing post 16 A-level examinations for Home Economics and Food Technology in schools in England from 2016. This research explores teachers' experiences from 2016-2020, specifically their views on the progression pathway for those students who wish to pursue further study and employment opportunities in the food sector and other relevant occupations. Schools offer non-A-level courses less frequently as there is uncertainty around course equivalence, and this has resulted in an overall reduction in the numbers studying post 16 food courses. Level 3 qualifications are now focused solely on the hospitality and catering sector with only one applied general qualification. Opportunities for broader areas of study that encompass food science, nutrition and dietetics and food technology have been removed. This has meant that now fewer students access broader career pathways and interests crucially at a time when the UK requires vast numbers of highly skilled postgraduate recruits for the food sector. Teachers made a strong case for why a new A-level course should be developed.

## Key Words

A Level, Food Technology, Home Economics, Vocational Qualifications, Applied Qualifications, Qualifications Reform, post 16 progression

## Introduction

This research report examines the impact of removing post 16 Advanced-level examinations for Home Economics and Food Technology in schools in England from 2016. The research seeks to explore teachers' experiences since this policy was implemented, specifically their views on the progression pathway for those students who wish to pursue further study and employment opportunities in the food sector and other relevant occupations.

## Background

In 2016, as part of wider qualifications reform, the Department for Education decided that A-levels in Food Technology and Home Economics would cease in England. Amongst the reasons given were that there are several high-quality vocational qualifications available and there are applied general qualifications that have a focus on food nutrition and food science, which have been endorsed by universities. (Department for Education, 2016). This was based on an announcement of a consultation in July 2015, which stated that AS and A level food technology would not be developed as a separate qualification, as it has been part of the Design &

Technology suite and 'food' did not fit comfortably within design and technology suite of qualifications. Concerns have been raised about the negative consequences of this policy decision on the academic status and position of food in the curriculum. (Owen-Jackson & Rutland, 2017; Tull, 2018; Rutland, 2020; Wood-Griffiths & Lawson, 2020).

In February 2020, the British Nutrition Foundation (BNF) with the Food Teachers Centre concluded a quantitative study of 900 secondary schools in England. This author was the co-researcher during the survey which set out to ascertain whether there had been any impact on schools and students due to the removal of A-level. The results (British Nutrition Foundation & Food Teachers Centre, 2020) highlighted many areas of concern such as a reduction in teaching, funding, and status for the subject, but did not elicit the in-depth information needed to understand the issues in detail, as qualitative methods are better suited for this. (Strauss & Corbin, 1990)

As a separate inquiry, for the purpose of pursuing an M Ed, through a preliminary analysis of the survey responses, several topics were identified worthy of further in-depth exploration, including whether there is a clear route of progression from GCSE for those students with an interest or passion in 'food'. Whilst writers have speculated that progression pathways and status have deteriorated (Rutland, 2020; Wood-Griffiths & Lawson, 2020), first-hand accounts from teachers about their experiences and why this is associated with the removal of A-level would provide valuable insights.

## Research Methodology

Situated in the Pragmatic Paradigm, (Tashakkori & Teddlie, 1998, 2010) this inquiry adopted a practical approach to explore what teachers are doing and the consequences of actions. As the researcher for this project is part of the teaching community, it was possible to draw upon a range of approaches, such as teacher survey questionnaire and interviews as well as professional experience to describe and interpret what is happening. As a phenomenologically orientated researcher the research is focused on understanding from the insider's or teacher's viewpoint (Fetterman, 1988).

Using the approach of 'Naturalistic inquiry' (Salkind, 2010; Lincoln & Guba, 1985) allowed an understanding of the impact on the teaching world more closely. This research approach was not intended to prove cause and effect, rather inductively to search for patterns in the collected data, and to offer explanations that describe and interpret the experiences of teachers and activities of specific schools in the context of teaching post 16 qualifications. A case study approach which allows intensive descriptions and analyses of a single event (Merriam, 1998), is an appropriate method to explore and explain the changes, since the A-level course ceased.

### Method: the selected sample

A 'purposeful sampling' method (Emmel, 2013) was employed to choose participants. It is also known as selective, or subjective sampling and is frequently used to select 'information rich cases related to the phenomenon of interest.' (Palinkas,, et. al., 2015). 'Participants criterion sampling' was chosen to pick those that met certain criteria intricately linked to the aims of the investigation. (Patton, 1990)

Participants were selected from the one hundred and fifty-seven teachers who agreed to be contacted again after the February 2020 survey. Filters were used across the respondents' survey data to identify those who met certain criterion (n=17). Teachers in schools that offered courses for students interested in pursuing further study in food and who had expressed concerns about changes to progression pathways were selected as they could provide first-hand accounts of the impact of the removal of A-level. The sample criteria included:

- those with more than 10 students who expressed an interest to study 'food' at A-level in 2018 and 2019 (as an indicator of a successful, strong, and established A level course).
- those schools where A-level Biology or Chemistry, or vocational courses (such as Health and Social Care and/or Food Science and Nutrition Diploma) were on offer to students interested in securing a place on a food related degree or career (to examine the claim by DfE that other courses could replace A level Food and maintain progression routes)
- those who expressed they 'disagreed or strongly disagreed' when asked if 'the progression routes had remained the same' since removal of A-level. In the February 2020 survey 71% respondents disagreed/strongly disagreed that routes of progression had remained the same, and 17% agreed/strongly agreed that routes of progression had remained the same. For those that had taught A-level, 78% disagreed/strongly disagreed that routes of progression had remained the same. This sample criteria was used to help examine what specifically had changed in these schools to progression routes.

From this sample of seventeen, eight teachers agreed to participate in further research. The less than 50% response rate could be attributed to COVID19 as it was a fast-changing situation between the first request and conducting the research. (March to May 2020). However, the sample represented views from a range of A-level teachers, including:

- a range of school types (three academies, one faith school, two community-maintained schools and two grammar schools), size of school and location
- a range of previous A-level courses (five taught AQA Food Technology, one taught OCR Home Economics and two taught Edexcel Food Technology)
- one male and seven female teachers, with a range of years of experience of teaching A-level
- six teachers who teach no post 16 course since the removal of the A-level and two teachers who teach Level 3 WJEC Food Science and Nutrition as a vocational alternative to the A-level.

**Methodology: data collection**

Data collection was designed to be manageable during a difficult phase of COVID19 March-May 2020. Many teachers were not attending schools and were under pressure to reorganise their lessons for home study. Face to face interviews would not be possible and participation time had to be limited. Multi- stage data collection method (Fetters et. al., 2013; Azorín & Cameron, 2010; Ivankova et. al., 2006; Hopwood, 2004) was chosen to include:

1. a short open-ended questionnaire that was completed first (administered by email as a text document)
2. a semi structured interview conducted using video conferencing (See Appendix 1).

The informal nature of the semi structured interview allowed the open-ended collection of data that allowed for individual variations, such as personal narrative, descriptions, observations, and examples, in addition to factual information (such as exam numbers, numbers of students who progressed to universities) and views that were collected via written questionnaire responses.

To make effective use of limited time, an interview guide was used. It ensured that the same information was covered for each participant systematically but there were no pre-determined responses. The interview guide was modified over the course of the interviews, to elicit detail on certain topics that presented themselves as important. (Lofland & Lofland, 1984).

Data collection themes included asking general background information, such as approaches to the curriculum, A-Level courses previously taught, career routes of ex-students; discussing what had changed in the school since A-level was removed; and discussing progression routes to further study and employment and the qualifications now on offer. These themes were chosen to reveal how the subject, students and teachers had been affected. The questions were devised using the author's professional experience of post 16 qualifications policy developments and by formulating follow-on 'probing questions' (Newcomer et. al., 2015) that linked to pertinent February 2020 survey questions and responses.

There were some methodological considerations which may have impacted upon the data collected.

- The interviewer/respondent effect - respondents might give particular responses to impress the interviewer or because of their position within a community. But is also seen that respondents can give greater information to people that are known to them. (Rodriguez et. al., 2015; Smyth & Holian, 2008)
- Knowing the study purpose - Knowing why the research is needed may create particular responses, for example, if the teachers felt that this might lead to a report to influence government to change their decision around A levels. (Unluer, 2012)
- Induced bias - personal prejudices of the researcher. (Morse, 2006)

**Method: recording and analysing data**

The raw data was collected from pre interview questionnaire responses and full transcriptions of interviews recorded. A thematic approach was taken to analyse the data, meaning that the critical themes emerged inductively. Content analysis from the raw data collected began with 'open coding' (Strauss & Corbin, 1990) using a 'word cloud' facility within the transcription software suggesting frequent key words (see Figure 1). Words, phrases, and activities that appear to be similar were grouped together, notes were made, and categories were created, linking together emerging themes.

As encouraged by Hoepfl (1997) the process was to view the:

'… "big picture." The purpose of coding is to not only describe but, more importantly, to acquire new understanding of a phenomenon of interest.'

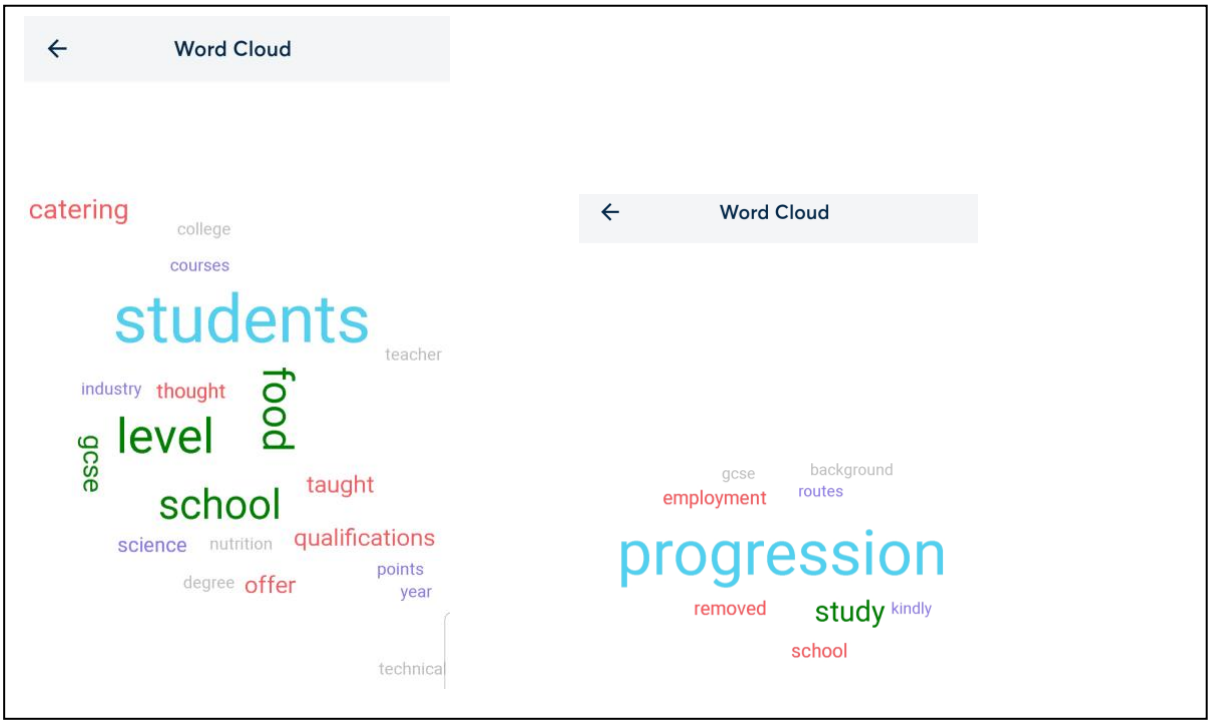


***Figure 1. Word Clouds generated by interview transcription software***

Some patterns or relationships can be confirmed or verified through the triangulation of multiple data sources (for example, we can compare findings to similar literature and external data regarding exam entries). The multi-stage approach of questionnaire and semi structured interview also meant that information could be checked to validate the data collected, verify the findings, and add rigour to interpretations (Lincoln & Guba, 1986). This was important as there was not time to employ member checks or peer reviews. A review of the multiple data sources was used to challenge any initial assumptions and to seek alternative views or explanations. The final stage was to identify those themes that were central and most useful to the research question.

**Method: Ethical issues**

This research encounters ethical questions that all researchers face when collecting people's personal accounts and experiences. This included employing appropriate and honest ways of questioning teachers, of analysing data and presenting findings fairly and accurately, as well as protecting the identity of the participants and their schools through anonymity (Lancaster, 2017; Vainio, 2013; Wiles et. al., 2006), particularly as an insider in the community (Taylor, 2011; Perryman, 2011). As the sample were selected from an earlier study (BNF & Food Teachers Centre 2020), permissions from teachers to be approached again for a new inquiry were gained.

## The Findings: The Progression Pathway

In general, *three consistent themes* emerged from the analysis of the data.

***Theme 1: Without the A-level course students who would have continued at 11-14 years to GCSE and beyond into higher education and careers in the food sector have lost a vital route*.**

During the interviews, all teachers voiced their concerns about the cessation of the pathway to future study and careers. They described with pride many ex- students who pursued their studies at prestigious Russell group universities and careers with high level positions in the food sector after the A-level course:

> *Some went into food science and technology, product development, food journalism, sports nutrition, international hospitality, lecturing, Ph.D. medicine, dentistry'…. they've ended up being in their dream job.*

Teachers interviewed also recognised its usefulness for high performing A-level students, in supporting a range of roles in preventative medicine, such for GPs and nurses: '*Our local hospital's Dietetics Department was solely filled with our alumni at one stage*'.

The two schools who had replaced their A level course with an applied general qualification alternative (Level 3 Diploma in Food Science and Nutrition) expressed, with disappointment, how this course rarely leads to university or careers in the food sector compared to the previous A-level: '*In the past, we have students that have become food product development managers, food marketing, dietitians…… very few of the Level 3 students have gone onto study food*'. The nature of cohort of students opting for this course appears to have changed and teachers describe how it is pursued by the lower abilities who are not headed for higher education: ' *The course appeals to students achieving GCSE grades 4/5/6 rather than the top grades'. And as a 'top up' subject for those that are resitting English and Maths because: 'it's something they enjoy rather than want to do it in the future*.'

The Department for Education's view that A-level food was not needed because '*a high proportion of universities offering food science and nutrition related courses are looking for students with science qualifications for entry to their courses*' (Department for Education, 2016) was not supported by the teachers who recounted how the A-level gave students a head start on their food degree:

> *When ex-students returned to the school, they always said the A-level food course prepared them well for university study and they were often at an advantage to students who had not studied food.*

Teachers reported that the limited amount of food science and nutrition content in Biology and Chemistry A-levels meant students are rarely taught about the broad range of careers in the food sector during those courses. Without the opportunity to nurture that passion '*it goes out of their minds*', the students are diverted to other interests, and they don't continue on a pathway to food science or other food courses and careers (MAG, 2019; FDF, 2017). Teachers previously linked their teaching closely with Science synergistically to give the course considerable applied learning and that is now missing: '*A-level food greatly improved the understanding of the students who were studying science*'. Teachers described how they used local business links and past students now in the food sector to arrange visits and talks to inspire and raise aspirations about what was possible to achieve. '*A-level was an excellent opportunity to open students' eyes to the huge range of careers in the wider industry that they would otherwise not have heard about*'.

> *We are desperately sorry for the ones that are keen to do something [in food] , they can't hold onto that keen interest for too long, and its lost which is a great pity because that might be the career that brings some true happiness.*

Their views were consistent with findings from other research confirming that subjects taken at A-level are important predictors of university attendance, both in terms of degree course and destination. (Sutch et.al., 2016; Rodeiro, 2019). '*They loved the subject at A-level their interest grew and then they studied it in higher education and went onto careers in food. I do not see that at all now*'.

In addition, the removal of food A-level appeared to have had unintended consequences affecting earlier exam choices for GCSE students too. Teachers reported that parents questioned whether the GCSE is '*worth studying' if there are no courses to progress to: 'At open evenings prospective parents treat it as a hobby and asked where they could find the science department*'.

Without an A-level pathway even teachers with high performing GCSE courses described how the numbers had reduced and attributed this to the lack of progression route:

> *Not having an A-level is unfortunately sending the message that the subject is not important, not academic and that there is no progression whatsoever. Since Food A-level disappeared, I cannot think of a single GCSE student that I have taught progressing to a Food degree.*

**Theme 2: The Qualifications Framework does not offer courses to ensure effective progression post 16 for the wide range of abilities and broad opportunities in the food sector.**

The Qualifications Framework, published by the Department for Education, is the list of approved and funded examination courses that can be taught in schools and other providers. A-levels are generally the most common learning aim for post 16 students (Zanini & Williamson, 2017). Teachers stressed how few suitable post-16 examination options there are despite the government claiming that there are *several* food science and nutrition courses endorsed by universities. This limited range sets it apart, as other practical subjects, such as PE, has A-level and 29 vocational courses (Spence & MacNamara, 2018). For Food, without this A-level, there are two types of courses available shown in Table 1:

1. Technical Levels in Cookery, Food and Beverage Service and Hospitality
2. Applied General Qualifications in Hospitality and Catering

***Table 1: Level 3 qualifications***

| Tech levels in cookery, food and beverage service and hospitality | | |
|---|---|---|
| Qualification Number | Qualification title | Size - GLH (Guided Learning Hours) |
| 601/3140/8 | City & Guilds Level 3 Diploma in Professional Patisserie and Confectionery (QCF) | 384 |

| Tech levels in cookery, food and beverage service and hospitality | | |
|---|---|---|
| Qualification Number | Qualification title | Size - GLH (Guided Learning Hours) |
| 600/4805/0 | VTCT Level 3 Diploma in Professional Patisserie and Confectionery (QCF) | 384 |
| 600/9005/4 | VTCT Level 3 Diploma in Professional Cookery Studies (QCF) | 473 |
| 601/3139/1 | City & Guilds Level 3 Diploma In Advanced Professional Cookery (Kitchen and Larder) (QCF) | 555 |
| 600/4804/9 | VTCT Level 3 Diploma in Advanced Professional Cookery (Kitchen and Larder) (QCF) | 555 |
| 601/3142/1 | City & Guilds Level 3 Diploma In Advanced Professional Cookery (QCF) | 785 |
| 600/4803/7 | VTCT Level 3 Diploma in Advanced Professional Cookery (QCF) | 785 |
| 600/2244/9 | Pearson BTEC Level 3 Diploma in Food and Beverage Service Supervision (QCF) | 347 |
| 600/4806/2 | VTCT Level 3 Diploma in Food and Beverage Service Supervision (QCF) | 347 |
| 600/2078/7 | City & Guilds Level 3 Diploma In Food and Beverage Service Supervision (QCF) | 354 |
| 500/8209/7 | Pearson BTEC Level 3 Extended Diploma in Hospitality (QCF) | 1080 |
| Applied general qualifications in hospitality and catering | | |
| QN | Qualification title | Size (GLH) |
| 600/4386/6 | WJEC Level 3 Diploma in Food Science and Nutrition (QCF) | 360 |
| 601/4552/3 | WJEC Level 3 Diploma in Food Science and Nutrition | 360 |

**Technical Levels in Cookery, Food and Beverage Service and Hospitality**

None of the teachers interviewed offered the courses for Technical Levels in Cookery, Food and Beverage Service and Hospitality at post 16. These courses include Level 3 Diploma in Professional Patisserie and Confectionery, Professional Cookery Studies, and Hospitality.

> *The courses are great and have their place but are not comparable to A-level Food Technology in terms of reputation or academic rigour. ….. they do not always appeal to students with more of an academic profile.*

The most common reasons given by the teachers for not offering these courses were:

- The Technical Level courses do not offer progression from 11-14 years (KS3) and GCSE Food Preparation and Nutrition into a broad range of future opportunities, as they are too narrow and craft skill- job focused
- It was not what the students wanted to do as they were pursuing university admission and sought a broad base of 'facilitating' A-level subjects (Dilnot, 2018) rather than a

specific skill-based course. UCAS reports that only 9% students apply to university with a mix of A-levels and BTEC qualifications. (UCAS, 2016)

- Schools do not have the catering expertise, facilities or required timetable to deliver courses more suited to specialist Further Education Colleges.

Teachers were concerned that these courses were so specific to a job role such as pastry chef when many students want to keep their choices open at 17-18 years: '*It's directing them somewhere that they may not necessarily want to go through with at this stage… too specific*'.

**Applied General Qualifications in Hospitality and Catering**

Two teachers now taught the applied general qualification in Hospitality and Catering (WJEC Level 3 Diploma in Food Science and Nutrition) instead of the A-level. One stated that it 'appeared to be the only realistic qualification that could be taught alongside traditional A-levels'. They explained that it had not been easy to recruit and their numbers had reduced significantly. 'We will be lucky to keep this subject on the curriculum if the numbers continue to reduce'. This reduction in numbers is reflected in nationally as seen in Table 2 which compares the number of candidates entered for past A level (Food Technology and Home Economics) and current Level 3 Diploma.

***Table 2: Candidates entered for A level and Level 3 Diploma (https://www.jcq.org.uk/examination-results))***

| | |
|---|---|
| 2016 A Level | 2416 (source: Jamie Oliver Food Foundation 2017) |
| 2019 Level 3 Diploma | 605 |

These teachers expressed concerns about progression, specifically the lack of challenge for the top end of the ability range and the lack of appropriate choices in the Qualifications Framework. One teacher suggested that the Level 3 Diploma course is not broad enough and does not prepare students as effectively for university as the previous A-level course because there is insufficient 'step up in difficulty [after GCSE], with more technical science and nutrition content needed' .

It appears that schools no longer offer pathways to a range of qualifications that foster potential at all levels in the food sector with its *'…. opportunities for unskilled workers as well as for those highly skilled and highly educated*'. (Graham, 2020). This will impact greatly on the food and drink sector, where one third of the workforce is due to retire by 2024, leaving a shortage of about 140,000 recruits, of which 33% are skilled or highly skilled requiring a degree or postgraduate/PhD (FDF, 2017; Heasman & Morely, 2017).

**Theme 3: The A-level course name is a clear academic marker for the subject and with no A-level course on offer the subject standing has diminished in the eyes of headteachers, parents and students.**

Parents are familiar with what an A-level exam means and understand its currency for university admission and careers, as the exam has been in the school system since 1951. The past Food A-level was accepted as a science subject for university entrance.

> *Once the A-level was removed, the subject has suffered as it is perceived as having less status as there is no progression… I even have students who did not take the GCSE as there was no progression, so they ask: 'What's the point?*
>
> *The subject now seems to be consigned to a vocational course.*

Of great significance were 6 of the teachers, who despite highly successful past A-level results and popular courses, were not able to offer an alternative as their school simply refused to run any applied general qualifications (such as the Level 3 Diploma). If the course was not an A-level, it was not allowed to be taught in the school.

> *I am slightly annoyed that my school will offer A-level Film studies and A-level Dance but will not allow a Level 3 Food Science and Nutrition Diploma course, which is just as academically rigorous.*

Usually these decisions were made by the headteacher to meet the academic culture of the school and who may associate vocational courses '*explicitly for less able pupils*' (Kelly, 2017). Heads are very aware that choice of qualifications is instrumental in acceptance at the highest tariff universities. This reflects findings of others, for example McMullin and Kulic (2016) claim that '*better schools discourage students from entering vocational paths'* effecting the status of many subjects, as part of what Connolly (2020) describes as the '*polarisation that takes place in discourses around academic and vocational education*', in his study of Media courses.

> *'It was NO! It's an A-level or nothing'.*
>
> *'They are very proud that it's a very academic school and that [A-levels] is all that they offer. And I don't see that changing'.*

Teachers recount how Level 3 Diploma's standing is affected as nationally it is left off reporting the school results and has a different grading system, and how '*the status hasn't been helped with messages from some universities not understanding Level 3 qualifications' and how 'not being an official A-level …. really undervalues the subject and the hard work the students put in*'.

The two teachers, who offer Level 3 as an alternative to A-level, illustrate the struggle of communicating the equivalence of the Diploma course with parents and senior leaders in the school despite the 'Food Science and Nutrition' title: '*It's the title of it [Diploma], it just doesn't appeal to some of the students that we used to have'*. Teachers went to great lengths to provide convincing information such as comparison tables and letters from universities regarding acceptance:

> *it takes some persuading with parents at open evenings and parents' evenings that this subject is of equal worth to an A-level. Because of its title, many parents and students regard it as a vocational subject…… I honestly think it's just because it's not called an A-level.*

In addition to the unintended consequences of reducing GCSE number, there were significant implications that affected the teachers' careers and standing in the school. As a result, one teacher who is now Director of 6th form recounts how this has affected their career '*senior leaders don't count me as an equal'* and another stated '*just teaching an A-level subject, you*

*kind of have more kudos in the school'*. Another seeking promotion was told that '*only teachers who taught A-level would be considered for a middle management position*'. On this basis, the influence of a food teacher across the whole school will be severely limited, with little opportunity to become a senior leader or headteacher.

## Discussion

Table 3 summarises the key findings from examining the progression pathway and how this has been changed by the removal of A-level. It shows how policy decisions can interact with practice in schools, creating some unintended consequences and far-reaching changes.

In removing one A-level qualification ministers may not have foreseen that they would need to take action to protect the progression route and position of food in the curriculum

For example, when making a policy decision to remove Food A level:

- Consideration was not given to the lack of food science content in Biology and Chemistry A level examinations, as these new courses had been specified prior to decisions being taken and have not changed retrospectively. Thus, the assumption that those interested in a Food science route would be provided for by the new science A levels did not become a reality.

- Consideration was not given to the upcoming planned vocational qualification reform and how this may impact on the future food progression routes. Nor was it considered whether the vocational courses proposed were effective replacements for Food A level, giving the breadth of experience required, whether they were suitable for teaching in schools and whether they would be acceptable currency to headteacher and parents. High ranking – prestigious universities are less likely to accept applied qualifications. Applied general qualifications are not included in the performance tables for each school. Their contribution to school results is unrecognised and the subject's academic status declines. Two years on, the vocational courses have not been adopted by schools as they are narrow and specific to a trade, and now only one applied qualification offers a route. Teachers have expressed concerns about how the students opting for this route have changed from their previous A level cohorts. The cohort of students shifts away from those destined to university. The increase in lower ability students taking the exam at post 16 reinforces the lower academic status of the subject. Teachers remain on unsure if the qualifications reform will mean that smaller qualifications such as the one remaining course will be replaced by T levels (3 A level equivalent) by 2023 and then there will be no post 16 options available to them.

- Consideration was not given to making Food the only national curriculum subject without an A level, and how this reduce the subjects status in schools. The research report identifies a reduction in GCSE numbers since A Level ceased, as parents question 'where the subject leads to' and teachers describe how this has affected their career and status/standing in the school. Option choice decisions pre 14 years are based on those exam courses that have clear progression routes. Numbers have fallen for GCSE exam. Without A level and strong GCSE numbers we see Food teaching reduced to a one teacher per school, marginalising its impact and growth as an important contributor

to the whole school curriculum. There are fewer opportunities to work synergistically with the science team or PSHE teams in schools. The status of the subject is diminished as it appears not to contribute to the 'academic' school culture. The status of the Food teacher is diminished as they cannot contribute to post 16 education and career and school leadership progression for food and nutrition teachers are closed to them and they are less likely to influence the wider curriculum. As a consequence, very few food teachers progress to the senior leadership team, reinforcing the lower status of the subject.

- Consideration was not given to the skills gaps and requirements of the wider food sector at all levels across a wide industry. By 2024 food sector requires 50,000 recruits for highly skilled roles requiring degree or postgraduate/PhD. To limit the broad range of Food career pathways and interests crucially at a time when the UK requires vast numbers of highly skilled postgraduate recruits for the food sector will stifle economic growth.

Unless action is taken soon, these consequences of this policy decision will be irreversible.

***Table 3: Policy and Practice reinforcing factors***

| Policy decisions → | ← Practices and impact |
|---|---|
| Government Policy change during qualifications reform: removing A-level and replacing with Tech Level or Applied General Qualifications | Food and Nutrition is the only national curriculum subject without an A Level<br><br>Applied general qualifications are not included in the performance tables for each school. Their contribution to school results is unrecognised and the subject's academic status declines.<br><br>Applied general qualifications are less popular, fewer students enrol and progress to careers, exam boards find them less viable to run – reduced to only one course, which cannot provide a broad base for the food sector.<br><br>Lack of food science content in A-level biology and chemistry mean less students develop interest in the food sector, careers, and progression to university courses<br><br>Alumni industry professionals are no longer contributing to teaching and inspiring students<br><br>By 2024 food sector requires 50,000 recruits for highly skilled roles requiring degree or postgraduate/PhD |

| | |
|---|---|
| | Tech level qualifications are rarely taught in schools, students must choose a specialised full-time Further Education college route at 16 years rather than having a broad range of subject choices |
| University Course Admissions: Applied General Qualifications are worth 16 UCAS tariff points for a Pass grade, which is equivalent to the lowest grade A-level (E). Applied courses are not accepted by all Universities to be equivalent to traditional academic A-levels. | The cohort of students shifts away from those destined to university.<br><br>Increase in lower ability students taking the exam at post 16 reinforces the lower academic status of the subject.<br><br>Option choice decisions pre 14 years are based on those exam courses that have clear progression routes. Numbers fall for GCSE exam.<br><br>High ranking – prestigious universities are less likely to accept applied qualifications. |
| School only offers A-level qualifications in the 6th form due to its academic school culture. | Status of the subject is diminished as it appears not to contribute to the academic school culture<br><br>Status of the teacher diminishes as they cannot contribute to post 16 education.<br><br>Career and school leadership progression for food and nutrition teachers is inaccessible and they are less likely to influence the wider curriculum. Very few teachers progress to the senior leadership team, reinforcing the lower status of the subject.<br><br>Fewer opportunities to work synergistically with the science team in schools. |

## Conclusion and Recommendations

Food appears to be in a fragile position in post 16 curriculum. It is the only national curriculum subject without an A-level pathway to university and further study. Schools offer non-A-level courses less frequently as there is uncertainty around course equivalence, and this has resulted in an overall reduction in the numbers studying post 16 food courses. Level 3 qualifications are now focused solely on the hospitality and catering sector with only one applied general qualification. The Department for Education claim that there are several high-quality vocational qualifications available and applied general qualifications endorsed by universities is disputed by this research. Opportunities for broader areas of study that encompass food science, nutrition and dietetics and food technology have been removed. This has meant that now fewer students access broader career pathways and interests crucially at a time when the

UK requires vast numbers of highly skilled postgraduate recruits for the food sector. Teachers made a strong case for why a new A-level course should be developed:

> *I don't want to go back to food technology, don't want to go back to home economics, but I think there is an opportunity to do something really exciting and we can do something different, that could really flourish.*

In the field of Home Economics and Food and Nutrition curriculum this inquiry has added valuable insights into the consequences of becoming a 'vocational subject' and how ministerial decisions to reduce exam choices have far reaching consequences, many of which may be unintended.

The decision not to offer Food Technology or Home Economics at A-level was caught up in a political drive to promote cooking skills and a limited view of its 'academic worth' in the constant battle for credibility and status. (Tull, 2018; Attar, 1990). The subject has been unable to shake off the prejudices that are ingrained in its history, when it was introduced as cooking skills for the poor working-class girls and failed to be accepted as part of the liberal education system promoted by our universities, that still relegates practical, 'domestic' and applied subjects to second place.(Tull, 2018)

The next step is to ensure that the government policy makers are aware of the results of the research, particularly when the findings can be combined with the February 2020 survey. These findings, together with evidence from universities and the food industry, who have been detrimentally affected by this policy decision, provide a convincing argument to urgently improve the progression pathway to meet the needs of young people.

## Recommendations

Based on the February 2020 survey results and this research project, it is recommended that the following be undertaken:

- Hold a formal review to explore the potential interest and demand for the reintroduction of a 'food' A-level, taking into account changes that have happened in GCSE qualifications, introduction of T-levels, review of vocational qualifications, teacher workforce numbers, student interest and demand, university and employer need, and awarding organisation interest. If sufficient interest, a working group to develop draft subject content for consultation should be established.
- Ensure that all schools (including academies and free schools) offer a minimum level of food and nutrition education at Key Stage 3 (based on the recommendations made from the Food Education Learning Landscape research, 2017), and offer routes of progression at Key Stages 4 and 5 where there is need/demand.
- Review the number of secondary school 'food' subject specific teachers entering the workforce to ascertain whether there is suitable succession planning to ensure the continuation of high-quality food and nutrition education in schools. In addition, ensure that trainee, newly qualified and current 'food' teachers have the subject specific skills and knowledge.

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