GCU Glasgow Caledonian University

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SCOTTISH POVERTY & INEQUALITY RESEARCH UNIT

Ingredients for Success?

A nation-wide survey of teachers and stakeholders on food education across the UK

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Executive Summary

About the Research

At the end of 2022, researchers from Glasgow Caledonian University shared an online survey to explore the opinions and experiences of food education teachers across the UK. The core focus of the research was to explore barriers to practical food education encountered by pupils in secondary/high schools across the UK. A secondary focus of the research was to explore the potential contribution of food education to tackling food insecurity and promoting well-being.

Thank you for carrying out this survey and for giving HE teachers across the UK a chance to voice our views. As a fairly small subject area, we are so often not heard.

I think the survey covered many of the frustrations, except perhaps time. We have recently had our lesson time reduced dramatically which inevitably bites into our time (break, lunch, PPA's, after school) as you end up 'mopping up' (literally) the unfinished jobs from rushed lessons. Reducing time adds to the feeling of being undervalued.

The Importance of Food Education for Schools and Society

Practitioners perceive that food education is undervalued and under resourced. Even those who might dispute this claim would agree that food education imparts lifelong skills and prepares young people for work in tourism and hospitality, both service industries that make important contributions to the UK economy. These industries have been impacted in recent years by Brexit, Covid and now a cost-of-living crisis, which has resulted in a shortage of skilled food service professionals. Public food provision in our schools, hospitals, universities, care homes, prisons and miliary services need a steady supply of skilled workers to promote our national health and well-being. Food education is also important *in and for* schools. Affording young people more opportunity to access a curriculum that reflects their interests and allows their talents to flourish will enrich the school experience of more young people.

With a national health crisis, food education for all children should be more important than ever before.

Happy to follow the guidelines but also think there is a need to cook for other reasons than qualifications. This needs to be recognised.

Key Findings

In favour of cost-free food education

- Two-thirds of practitioners opined that no pupil should contribute to the cost of food education, with most of the remainder believing that cost should be made on a family's ability to pay.
- Belief in cost-free food education was stronger in Scotland, compared to the rest of the UK (four-fifths of those from Scotland considered that no pupils should pay to access food education).

Schools should provide ingredients like other subjects do - Art provide the resources needed to complete the lessons, science also provide all the experimental resources, PE also, so why food not?

Parents appreciate not having to provide ingredients or containers.

Food education at a cost

- In all schools from Northern Ireland, and in around nine-in-every ten schools in Wales and England, pupils were required either to make a financial contribution to the cost of food education, or to supply ingredients. In sharp contrast, in Scotland – where the Scottish Government has provided funds to cover costs – 98% of respondents reported that pupils were not required to make a financial contribution or to provide ingredients.
- In England, it was reported that contributions were least likely to be asked – and punitive reactions to non-provision less likely to be enacted - in smaller schools, larger cities, and in schools with a higher proportion of pupils who were entitled to free school meals.
- In England, Wales and Northern Ireland, three-quarters of teachers reported that some pupils are asked to supply ingredients (and two-fifths of teachers reported that all pupils in their school are asked to supply ingredients). In the same, two-fifths of pupils are asked to make a financial contribution toward the cost of food education (although in most cases, this is a voluntary contribution). As noted above, in state schools in Scotland, the school provides ingredients and parents are not asked to make a financial contribution.
- In England and Wales, pupils are most likely to be asked to supply ingredients if they have elected for food education at GCSE level.
- In those schools where at least some pupils are required to supply ingredients or make a financial contribution, two-thirds of pupils who are entitled to free-school meals are required to do so.
- Most teachers reported that pupils were also asked to contribute to the cost of food education in other ways, for example, by providing containers to take home food, or supplying their own aprons.
- One-third of teachers reported that exemptions from contributing to the cost of food education were not promoted among parents/guardians and pupils.

> *(I'm Danish) I am used to all ingredients being provided for all students while at school and the variety of ingredients we used were much bigger, e.g., the teacher might bring trays of live fresh fish, we would be allowed to pick our own dishes in families (small groups) and we would have sufficient time to sit down and eat our food after cooking.*

> *As we don't charge for the cost of ingredients, as required by the Scottish Government, I am concerned about future budget cuts and schools deciding not to offer food education due to the cost.*

Hidden costs and awareness of circumstance in Scotland

- Although pupils in state schools are not asked to make a financial payment or to supply ingredients, most teachers in Scotland reported that pupils were asked to contribute in other ways to the cost of food education by supplying equipment or consumables. However, teachers in schools with a higher proportion of pupils from more disadvantaged situations were less likely to report asking pupils to make these contributions.

Implications of pupils not contributing to the cost of food education

- Although most schools in England, Wales and Northern Ireland will faciliate participation if pupils do not supply ingredients (if required), in a significant minority of schools the consequence is a lesser educational experience (e.g., the pupil observes the lesson, but does not take part in practical work) or is punitive (e.g., pupils are not permitted to take the food home).

Ability of families to contribute to food education

- In those schools where at least some pupils are required to supply ingredients, fewer than one-half of teachers were confident that families would have ready access to most or all of the ingredients that they were asked to supply.
- Just over-one half of teachers reported that no advice was offered to families on how to source the ingredients that they were required to provide. Only one-in-five offered advice on where to source ingredients cheaply.
- One-third of teachers reported that their school had increased the amount of financial contribution required of families for 2022/23 school year.

Access to food education

- Most teachers perceived that cost was a barrier to accessing food education, although this was much more common outside of Scotland (thrice as many in the rest of the UK considered cost to be a barrier to participation).
- Access to food education varies across the four UK nations, options particularly limited in England and Wales. A much wider range of options being presented in Scotland, and more schools in Scotland reported to offer what is available to pupils. Respondents from Northern Ireland reported widespread access to advanced level qualifications.
- Interesting patterns of access to food education were reported in England, with less access to GCSE reported in schools with a higher proportion of pupils from disadvantaged backgrounds, and in smaller schools.
- Those schools in Scotland with a higher proportion of pupils from more disadvantaged backgrounds were more likely to report that pupils could access lower-level qualifications (National 3). However, small schools were less likely to offer access to the Higher (AS equivalent) in Health and Food Technology: there was also some evidence to suggest that schools with a high attendance and a high proportion of S5/S6 pupils among the school population were *less* likely to offer pupils the opportunity to present for this Higher.
- Teachers in Scotland were twice as likely as those from the rest of the UK to perceive that pupils who are entitled to free school meals were "more likely" to choose food education as one of their subject choices.

Need to bring back A level. Will not be taken seriously until then.

Home Economics is viewed as a "dumping" ground for pupils who can't take other subjects, just we are expected to get them Nat 5s. The exams are Practical Cookery are mental, it is becoming an English course rather than a practical subject.

It is frustrating when it comes to pupils' options as our subject is often up against other subjects like PE or some of the sciences so we either get pupils who would like to choose the subject but can't because they are told to pick a more 'academic' subject or the ones that don't want to do anything else in the column. In S3 last year we could have had x 4 Practical Cookery classes instead of the 2 we have and the 2 that we have a lot of the pupils did not pick it as their first choice and the ones that did pick it as the first choice (if they are deemed to be more academic) are advised not to take it so we end up with a class that don't really want to be there and a lot of pupils disappointed. It is the system that is unfair and the way the subject is viewed as a whole.

Highly variable asks

- There is much variation among those schools in England, Wales and Northern Ireland which ask families to make a financial contribution toward the cost of food education. Payments by class ranged from 50p to £4; payments by rotation ranged from £1 to £20; payments by term ranged from £2 to £30; and annual payments ranged from £2 to £60, with annual costs typically around £15.

The work of sourcing ingredients for school education

- No single approach to sourcing ingredients for food education prevailed across the UK.
- Teachers reported being able to exercise discretion on where to purchase ingredients, although for one-quarter of teachers this required them to expend their own money before claiming back what they have spent.
- Most teachers reported shopping for ingredients for food education, with two-fifths reporting that this was a frequent occurrence (either 'all the time' or 'often').
- Most teachers reported that neither were travel costs reimbursed, nor was time spent sourcing ingredients counted as hours worked.

Technician support

- Most schools had technician support, although only two-fifths of respondents reported that they had enough technician support.
- The lack of technician support was reported to have an adverse impact on food education. Almost all acknowledged that this increased teachers' workload, with a significant minority also noting that lessons had to be adapted, the quality of lessons decreased, and the workload for other technicians increased.
- Most respondents report that pressures on food education staff have intensified this school year, with more time spent sourcing ingredients, a shortage of teachers, and increased demands on technician's time. More respondents from Scotland perceived a shortage of teachers, particularly those from schools with a higher proportion of minority ethnic groups among the pupil population.
- In both England and Scotland, less technician support was available in smaller schools.
- In Scotland, teachers from schools serving more disadvantaged communities were much less likely to report that they had enough technician support.
- Schools in Scotland were more likely than those from the rest of the UK to report that the lack of technician support was diminishing the quality of lessons, with those from smaller schools and schools serving more disadvantaged populations being particularly likely to express concern over the impact on lesson quality.

The lacking technical support has a big impact on recruiting and retaining teachers.

After very long time campaigning, we finally got a technology technician for 16 hrs last week. He did 2 days....amounted to 2 hrs in food then complained that while He was OK with dt and art jobs he didn't like cleaning out equipment and wasn't prepared to work in food. So unbelievable! Head of faculty agreed to him working just art and DT so we are totally stuffed. Cross is an understatement .

Food education in times of rising living costs

- In most schools it was reported that the budget for sourcing ingredients had not increased in the current school year (2022-23). Furthermore, in the majority of cases where it had increased, the budget was reported to have increased below the rate of food inflation.
- Schools in Scotland were more likely than those in the rest of the UK to have increased the budget for ingredients in the current school year, although most were not increasing the budget to match food inflation.
- Most practitioners reported changes to classroom practice in the current school year. These changes accommodated the circumstances which schools and families are encountering (for example, adapting recipes to make them more affordable). However, some changes were reducing the quality of the educational experience (for example, one-quarter reported more cooking in pairs).
- Many practitioners noticed increases in indicators of need among children attending Food Education, with most observing that more childen are eating the food prepared in class immediately after class.
- One-half of all teachers in Scotland observed that more childen are now appearing hungry in class, with significantly higher rates in schools with a higher proportion of pupils from disadvantaged backgrounds.
- Elsewhere in the UK, three-quarters of those in schools where pupils were required to bring ingredients to class, reported that problems related to this had increased in the current school year. Similar findings were reported by teachers in schools where pupils were required to make a financial contribution.
- Most practitioners also express concern that the current challenges are having hidden consequences with most expressing concern that equipment is not being replaced and that difficulties are being faced supporting wider education, such as extra-curricular clubs. Expressed concerns were slightly higher among teachers in Scotland, with some evidence that supporting extra-curricular clubs was more of a challenge in schools with a higher proportion of pupils from disadvantaged backgrounds.

It is becoming increasingly difficult if not impossible to get equipment repaired or serviced, the food budget is inadequate and is often supplemented by staff without reimbursement - again this is becoming more difficult as strain on personal budget increases

Food education and food insecurity

- Most agreed that food education should have closer links with social subjects to explore food insecurity as a cross-curricular issue.
- Interestingly, there was slightly less support for this in Scotland (albeit with a majority still in favour of it), despite there being a stronger rationale for cross-curricular education in Scotland with its Curriculum for Excellence. On the other hand, schools in Scotland which had a higher proportion of pupils from disadvantaged backgrounds were as likely to schools in the rest of the UK to support closer links.
- Most practitioners opined that food education should contribute to tackling food insecurity, with a clear majority strongly agreeing that it should.
- Most practitioners opined that food education actually contributes to tackling food insecurity, although more considered that it made 'a little' contribution rather than 'a lot'.
- A wide range of actions were reported to describe the ways in which food education could contribute to tackling food insecurity. Some of these had almost universal appeal (e.g., teaching how to cook on a budget), while others appealed to the majority (e.g., teaching about levels of food insecurity), and others only by a minority (e.g., teaching about community pantries).
- In Scotland, there was some evidence to suggest that support for specific actions to tackle food insecurity through food education (teaching about food insecurity and teaching about community pantries) was strongest in schools serving a higher proportion of pupils from disadvantaged areas.

> *Teaching about food banks can be a highly emotional topic when we know students families may rely on them. We have quite a high number of PP and even run a school based one. Ofsted also insist we are non-political and so guidance on how to explain why we need them, without creating a further sense of shame for those that do use them would be helpful.*

> *A big shift in the focus for HE was the introduction of Curriculum for Excellence in Scotland where Health and well-being was given equal importance as numeracy and literacy in schools. We need to make sure as HE teachers that we continue to grasp the importance of the HWB aspects and ensure that as HE teachers we 'fight' to ensure we are not marginalised or pushed aside in favour of the more traditional curriculum subjects.*

> *We struggle with time allocation as we are on a carousel system. We would love to be able to teach about food budgeting, food banks, etc but we are so squeezed for time.*

How do we think others view food education?

- Most practitioners perceive that others think that food education is 'important, but less important than other subjects'.
- Practitioners believe that support for food education is strongest among pupils and senior management in their school, with parents/guardians valuing it more highly than those in wider society and other teachers in their school.
- There was a stronger belief in Scotland that senior management was supportive of food education, particularly in schools with a low proportion of S5/S6 pupils among the pupil population.

> *All pupils enjoy the subject, very little disruptive behaviour in lessons compared to other curriculum areas.*

> *Comments have also been made by SLT members that nutrition teaching isn't important as we are in an affluent area, that food lesson structures should resemble a cooking show and that we aren't part of the National curriculum so not to worry. There is very little to no understanding of what food education is beyond those staff who have worked with the department*

Next Steps to Consider

1. **Campaign for cost free food education**. The research demonstrates strong support for cost free food education across the UK, with most practitioners opining it should be free, and that cost was a barrier to participation. Support is found throughout the UK but is strongest in Scotland where the Scottish Government has already committed funds to local government to enable core curriculum charges for food education to be waived.

2. **Campaign for an extended period of compulsory food education.** The research demonstrates strong support for providing pupils with access to food education for more of their school education. There is a perception among teachers of food education that the subject is valued by other stakeholders.

3. **The need for national conversations of food education.** Notwithstanding UK-wide support for cost free food education, there is significant variation across the UK, which suggests the need for national conversations to explore the UK-wide issues raised in this report, and those aspects of food education that are more pertinent to that nation. For example:
   a. **Northern Ireland.** It would be interesting to explore why there appears to be stronger support in Northern Ireland for parental contributions to food education, relative to other parts of the UK.
   b. **Scotland.** It would be interesting to explore why – with a Curriculum for Excellence that values inter-disciplinary learning – there is less support for food education to work more closely with social subjects to better understand food insecurity issues**.**
   c. **England.** It would be interesting to explore why smaller schools and schools with more disadvantaged pupils appear to offer more progressive approaches to some key aspects of access to food education.
   d. **Wales.** It would be interesting to explore the prospects for a wider range of options for food education being made available to pupils (also applies to England).

4. **Hidden cost of food education.** Providing ingredients, equipment and accessories are hidden costs. It would be useful to better understand the total cost to families of food education across the UK, and to reflect on whether these asks are reasonable and just.

5. **Promoting exemptions**. Although a range of exemptions are used to ensure that disadvantaged families have access to food education, there is evidence that these are not being promoted to parents: this could be rectified.

6. **Share practice in response to non-provision**. A wide range of responses were reported when pupils did not provide ingredients, payments, equipment, and accessories, which were asked of them. Some of these were punitive, others were grounded in inclusive principles to access food education. It would be useful to raise awareness of the wide range of ways in which schools are responding to this issue, and to work toward some agreed principles to achieve equity.

7. **Increasing hardships.** There was strong evidence from all four UK nations that the hardships experienced by families in the cost-of-living crisis of 2022-23 were impacting on pupils' experiences of food education. There is a need to reflect on how schools should respond, and the extent to which food education should adapt practices.

8. **Technician support.** There is a need to reflect on the problems that were reported over a lack of technician support. There is a need to focus on the implications in smaller schools, where a lack of support was most evident.

9. **Disinvestment.** It was reported that there was a lack of investment in equipment and facilities for food education in the current school year. There is a need to reflect on the longer-term consequences if there is under-investment in food education.

10. **Connecting to wider issues.** There is support for promoting an understanding of the wider role of food in a healthy society, exploring how food education might be aligned to physical education to promote well-being, and to social subjects to promote a better understanding of food insecurity. The prospects for aligning food education to these wider issues – and other such as sustainability and community wealth-building – should be explored.

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Acknowledgements

SPIRU and the Project Steering Group would like to thank all those who gave freely of their time to complete the survey, and to all those who offered advice on the survey design.

I have been teaching for over 32 years and never have I felt so demotivated teaching a subject that I still love and are compassionate about. This is mainly due to the lack of support and resources that are now available. The subject is also not valued and seen as important across the school. All academic pupils are being persuaded not to take the subject.

The strain of not having a technician for the last 1.5 years after having one for the first 7 years of my career has been unimaginable. It has impacted my own health, happiness, lessons, planning and it has impacted on the students the most as I'm just not able to juggle everything they need. All of this has resulted in me making the decision to leave the profession in April 2023 when my notice period ends. I will be very sad to go, but it's just no longer a sustainable workload.

I am very lucky to now be teaching in the independent sector. If I had still been in my previous school, I know my answers would have been very different.

Support for food teaching has increased hugely this year. I put this down to a member of SLT being asked to teach some classes this year.

1. About the Research and the Report

The Need to Canvass Opinion on the Cost of Food Education

Throughout 2022, concerns over the cost of living, and in particular, the rising cost of food, had been raised by many organisations. In November 2021, the Food Foundation published the first of its monthly commentaries on food prices. It also maintained a food price tracker, drawing on ONS Consumer Price Index data.

The rising cost of food ingredients is not only of concern to families: it is emerging as a concern among practitioners delivering food education in schools. There is also an interest to explore divergence in experiences of food education across the UK, following the Scottish Government commitment to provide funds to local government to enable core curriculum charges to be waived: these funds remove the need for parents/guardians to supply ingredients in Scottish schools, or to contribute to their cost.

SPIRU Research on School Food

SPIRU has completed several projects that aim to inform practitioners who are delivering food in school:

- Are Pupils Being Served? A secondary review of the sector's evidence base on school meal provision in Scotland (2019).
- Tackling Food Insecurity in Scottish Schools: Case studies of strengthening free school meal provision in Scotland (2021).
- Pass Go for Grab-N-Go? An evaluation of the pilot grab-n-go breakfast cart provision in three schools in East Renfrewshire (2021)
- Fuelled in School? A nationwide survey of secondary school pupils' opinion on school meals in Scotland (2022)
- Breakfast for All? An evaluation of universal breakfast provision at Cauldeen Primary School, Inverness, Highland, Scotland (2022)

This is our first project that examines food education in schools.

About this Research

SPIRU was approached in the summer of 2022, inviting it to undertake research to describe the experiences of those delivering food education across the UK.

A Steering Group was formed comprising key figures and representatives from organisations in each of the UK's four nations who were concerned with promoting good practice in food education:

- Child Poverty Action Group (Georgina Burt, Ellie Harwood, and Sara Spencer)
- Children North-East (Ellie Liddle, Lorna Nicholl)
- Children in Northern Ireland (Ernest Purvis)
- Education Scotland (Tracey Johnston)
- Food Teachers Centre (Louise Davies)
- Poverty&Inequality Commission (Lindsay Graham)
- Scottish Qualifications Authority (Graeme Findlay).

SPIRU designed an online survey in the Autumn of 2022, working alongside the Steering Group. This survey was distributed by Steering Group members to those on their mailing lists. The survey closed in early December 2022.

Preliminary findings have been shared at conferences for teachers held by the British Nutrition Foundation in each of the four UK nations, and with the All-Party Parliamentary Group on School Food.

About this Report

In this report, we share findings in section 4 through 12. These results are preceded by an explanation of the research (section 2) and a rapid review of findings from previous research (section 3):

4. Parental Contributions: A Summary
5. Supplying Ingredients
6. Financial Contributions
7. Equipment and Accessories
8. School Operations
9. Access to Food Education
10. Changes in this School Year
11. Food Education, Food Insecurity and Well-being
12. Perceptions of Food Education

2. Making Sense of the Data: Review of the Survey Research Method

Research Aims

The core focus of the research was to explore the barriers to food education encountered by pupils in secondary/high schools across the UK.

A secondary focus of the research was to explore the potential contribution of food education to tackling food insecurity and promoting well-being.

Research Design

It was agreed that an online survey would be an effective and efficient means of canvassing opinion, as comprehensive mailing lists of food education practitioners were maintained by Steering Group members for each of the UK nations.

The survey was designed iteratively with SPIRU leading the design, drawing on the ideas and comments of the Steering Group, and from issues that emerged from a rapid review of published work. The Food Teachers Centre also canvassed the opinion of an online group of teachers for advice on what should be included in the survey.

The survey was piloted among SPIRU Student Researchers, with minor amendments made to the online tool as a result. The Steering Group approved the final version of the online survey.

Ethical Approval

The Research Ethics Committee of the Glasgow School for Business and Society at Glasgow Caledonian University approved this research, prior to administration.

Survey Promotion

Responsibility for distributing the survey to teachers of food education, rested with the Steering Group members, who shared this survey through pre-existing networks.

Survey Administration

Respondents arrived at a landing page where they were afforded the option of visiting an information page that explained more about the survey and the research, or to go straight to the first question.

The survey comprised 64 questions, although not all questions were asked of all respondents. For example, if respondents indicated that their school did not ask pupils to supply ingredients, then respondents automatically skipped the following six questions that explored this issue in more detail. Other questions were tailored according to each UK nation, e.g., questions on school qualifications.

The survey was launched on Monday 21st November 2022, and closed on Friday 9th December 2022.

Quality Assurance

Extensive quality assurance checks were administered to ensure that the final dataset comprised only responses from the four UK nations, and that there was internal consistency within any survey return.

School Identification

Respondents were assured that no individual school or food education teacher would be identifiable in the research report. However, respondents were invited to leave their contact details if they requested to receive a copy of the final report. Furthermore, all respondents were asked to identify their school. These data were used to profile the schools from which respondents were drawn.

Data Analysis

Exploratory data analysis was administered for each issue to ascertain whether there were any statistically and substantively significant differences of opinion or experience.

Standard measures of statistical association for categorical data were applied, applying the standard threshold of 95% confidence level. For the most part, the report limits itself to reporting differences of opinion and experience that meet this threshold.

Respondent Profile

Who Completed the Survey?

Following quality assurance checks, the final survey population comprised 1,036 teachers of food education from across the UK.

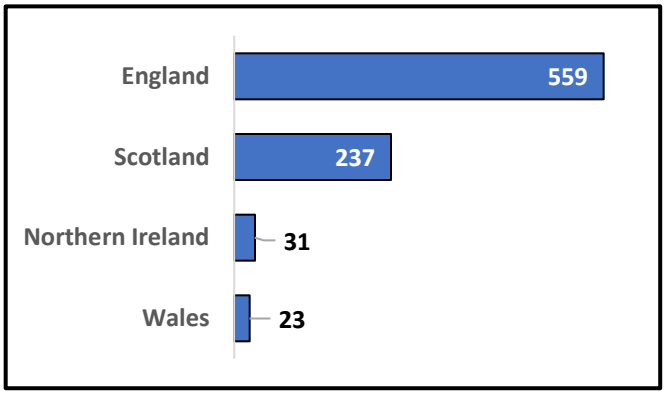
Respondents described themselves according to five key characteristics, which were used to explore whether there were differences of opinion and experience among teachers of food education.

- UK nation
- Role
- Gender
- Length of time working in food education
- Whether entitled to a free school meal when a pupil

Respondents also identified their school. This enabled a school profile to be produced for respondents from England and Scotland using the latest school level summary statistics. This allowed an estimation of the extent to which the survey population from England and Scotland was representative of Home Economics (as it is known) teachers in Scotland. It also permitted analysis of whether there were differences of opinion and experience across different school types.

UK Nations

Respondents were asked, "in which country do you work", with the four UK nations offered as response options. An 'Other' response was also offered.



Cases: 850

Most respondents indicated that they worked in one of the four UK nations (850), with seven more indicating a place beyond the four UK nations (e.g., Isle of Man). The UK nation of a further 31 respondents who did not answer this question could be deduced from answers provided elsewhere in the survey.

There are sufficient responses to compare England and Scotland. Given the different funding regimes for food education in Scotland (compared to the rest of the UK), there is also merit in comparing Scotland to the 'Rest of the UK' (England, Wales, and Northern Ireland).

In general, there are insufficient returns to explore differences among schools in Northern Ireland and Wales. However, it should be acknowledged that response rates are broadly comparable for England, Wales, and Northern Ireland (with responses received from slightly more than one-in-every-ten schools). Responses were received from two-thirds of secondary schools in Scotland.

Differences among schools in England and Scotland are explored Comment is made where survey responses are atypical in Wales and Northern Ireland, with the caveat that this comment is speculative, given the number of survey responses.

School Profile (England)

Respondents in England were asked to identify the school in which they worked and the local authority in which this was based: 407 of the 559 respondents from England identified their school. For a small minority of these respondents, the information on local authority was useful in clarifying which of the schools sharing the same name they were from. In England, returns were received from 123 local authorities.

The most recent data from the UK Government were used to profile the school for each of these respondents.[1] In the table below, we compare profiles of the survey respondents (survey population) to all state-funded schools in England (total population). These data permitted exploration of whether experiences and outlook varied according to school size (pupil roll), whether a single-sex or mixed-sex school, whether state-funded or independent, Academy status, share of pupils with English as a second language, share of Minority Ethnic pupils, share of pupils registered for a free school meal, urban-rural status of school and denomination.

	Column percentages	
	Survey Population	**Total Population**
Government Office Region		
South East	20%	15%
North West	13%	14%
West Midlands	12%	12%
South West	12%	10%
East of England	11%	11%
London	9%	15%
Yorkshire and Humber	9%	9%
East Midlands	8%	8%
North East	6%	5%
School Size		
Small (under 500)	12%	32%
Medium (500-1000)	36%	29%
Large (over 1000)	52%	39%
Sex-Composition		
Boys-only	2%	4%
Girls-only	7%	5%
Mixed-sex	91%	91%
Funding Type		
State-funded secondary	87%	75%
Independent	8%	N.A.
State-funded special	4%	18%
Pupil referral unit	1%	6%
Academy Status		
Academy	73%	71%
L.A. maintained	19%	29%
Independent	8%	N.A.
Share of Pupils with English as Second Language		
Low (under 5%)	38%	14%
Medium (5%-<10%)	26%	6%
High (10% or more)	36%	79%
Share of Minority Ethnic Pupils		
Low (under 5%)	8%	4%
Medium (5%-<10%)	22%	3%
High (10% or more)	70%	93%
Share of Free School Meal Entitlement		
Low (under 10%)	16%	30%
Medium (10%-<25%)	52%	43%
High (25% or more)	32%	27%
Admissions Policy		
Non-selective	83%	62%
Not applicable	11%	28%
Selective	6%	4%
Share of Pupils by Pupils' Home Geography		
Rural hamlet and isolated	3%	2%
Rural town and fringe	14%	10%
Rural village	4%	2%
Urban city and town	50%	49%
Urban conurbation	30%	37%
Denomination		
Non-denominational	81%	86%
Roman Catholic	9%	7%
Church of England	9%	5%
Other Christian	2%	1%
Non-Christian Faith	0	1%

Note: Due to rounding not all column totals will sum to 100%.

The survey population is broadly representative of the total population in England. There are some differences, for example, there was an over-representation from small schools. There are sufficient data to explore variation across a range of school settings in England.

School Profile (Scotland)

As for England, respondents were asked to identify the school in which they worked and the local authority in which this was based: 193 of the 243 respondents from Scotland identified their school. As for England, for a small minority of these respondents, the information on local authority was useful in clarifying which of the schools sharing the same name they were from. Returns were from 28 of the 32 local authorities (all except South Ayrshire, North Ayrshire, Renfrewshire, and Comhairle nan Eilean Siar).

The most recent data from the Scottish Government were used to profile the school for each of these respondents.[2] In the table below, we compare profiles of the survey respondents (survey population) to all state-funded schools in Scotland (total population). These data permitted exploration of whether experiences and outlook varied according to school size (pupil roll), share of senior pupils among school population, share of pupils with Additional Special Needs, share of pupils with English as a second language, share of Minority Ethnic pupils, share of pupils registered for a free school meal, share of pupils from the 20% Most Deprived Areas in Scotland, pupils home geography, urban-rural status of school, attendance rates and denomination.

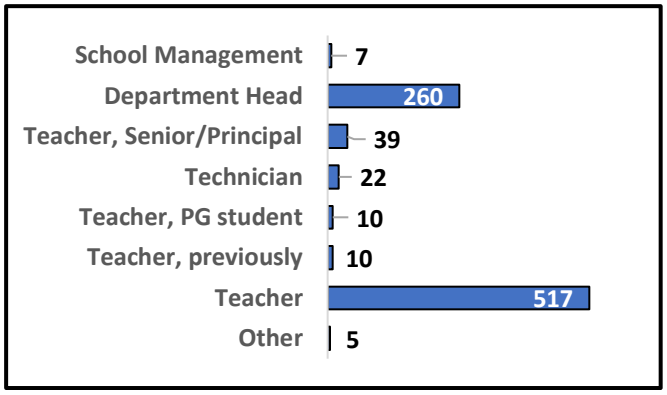
	Column percentages	
	Survey Population	**Total Population**
School Size		
Small (under 500)	6%	18%
Medium (501-1000)	46%	45%
Large (over 1000)	48%	36%
Share S5/S6 Among Roll		
Low (under 25%)	24%	25%
Medium (25%-<30%)	57%	59%
High (30% or more)	19%	16%
Share of Pupils with ASN		
Low (under 33%)	30%	28%
Medium (33%-50%)	48%	50%
High (more than 50%)	22%	22%
Share of Pupils with English as Second Language		
Low (under 5%)	66%	67%
Medium (5%-<10%)	16%	16%
High (10% or more)	18%	17%
Share of Minority Ethnic Pupils		
Low (under 5%)	55%	56%
Medium (5%-<10%)	18%	23%
High (10% or more)	27%	21%
Low (under 10%)	21%	25%
Medium (10%-<25%)	58%	57%
High (25% or more)	21%	18%
Share of Pupils from 20% Most Deprived Areas		
Highest (50% or more)	12%	12%
High (25%-<50%)	28%	24%
Low (5%-<25%)	29%	21%
Lowest (under 5%)	31%	43%
Share of Pupils by Pupils' Home Geography		
Mainly rural	5%	15%
Mainly small towns	3%	4%
Mainly urban	68%	56%
Mainly small town & rural	9%	13%
Mainly small town/ urban	5%	3%
Mainly urban & rural	8%	7%
All three types	2%	2%
Share of Pupils by School's Urban-Rural Classification		
Large urban area	33%	27%
Other urban area	45%	37%
Accessible small town	6%	9%
Remote small towns	4%	5%
Very remote small town	1%	2%
Accessible rural	6%	7%
Remote rural	3%	5%
Very remote rural	3%	9%
Share Attendance Rates		
Low (under 85%)	8%	8%
Medium (85%-<90%)	55%	52%
High (90% or more)	37%	42%
Denomination		
Non-denominational	76%	87%
Roman Catholic	24%	15%

Note: Due to rounding not all column totals will sum to 100%.

The survey population is representative of the total population in Scotland. There is a slight over-representation from small schools, rural schools/pupils, and non-denominational schools. There are sufficient data to explore variation across a range of school settings in Scotland.

Role

Respondents were asked, “what is your current role”, and were provided with a list of eight options. An ‘Other’ option was also provided. Most respondents described their role (870).



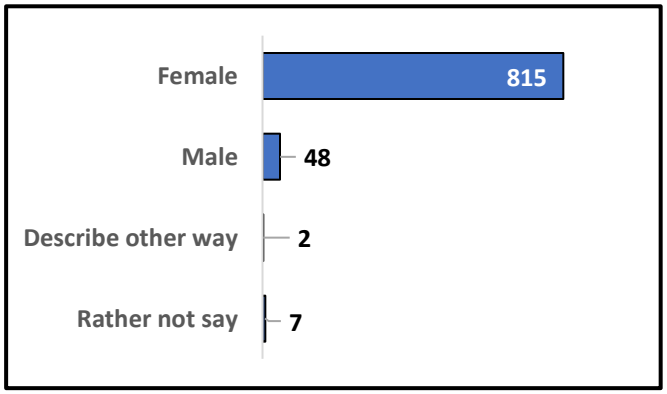
Cases: 870

There were insufficient responses from technicians to present a technician perspective on the issues raised in the report.

Throughout the report, differences are explored between teachers (current, retired, postgraduate and Principal/Senior) and those with management responsibilities (Department Heads and school management).

Gender

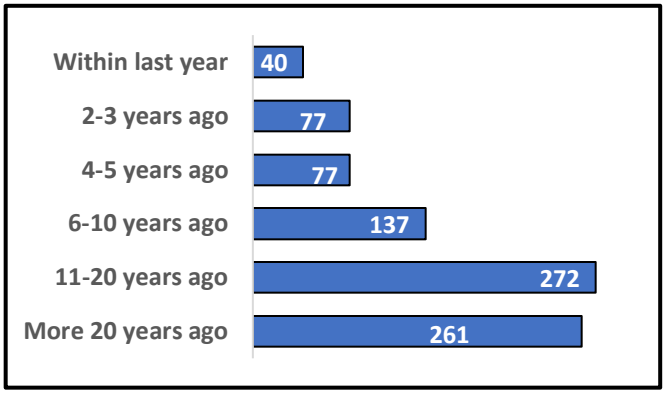
We asked, “what is your gender identity”, offering five options in addition to ‘I describe myself in another way’ and ‘rather not say’. Most respondents identified as a woman (94%) or man (5%). Throughout the report, differences are explored between men and women.



Cases: 872

Length of Time Working in Food Education

We asked, “when did you start working in food education in schools”, offering six options ranging from ‘within the last year’ to ‘more than 20 years ago’. We also offered an ‘Other’ option, inviting respondents to provide an explanation (10 responded in this way).



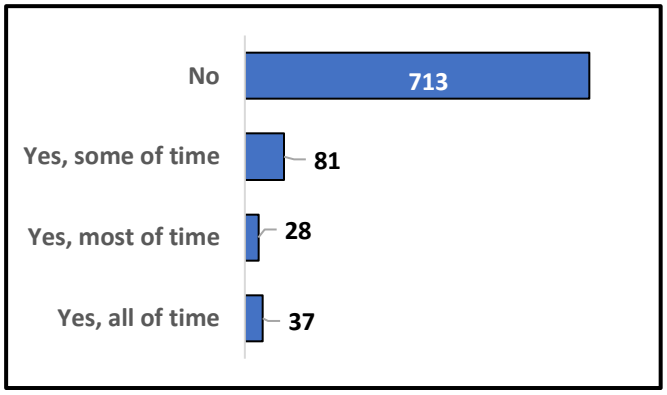
Cases: 864

Most respondents had acquired many years of experience in working in food education, with almost two-thirds of respondents working in the field for more than ten years (62%).

Throughout the report, differences are explored between those having entered the field recently (within the last ten years), those who have acquired much experience (11-20 years) and those with extensive experience (more than 20 years).

Entitled to Free School Meals When a Pupil

We asked, “were you entitled to free school meals when you were a school pupil”, offering four options in addition to ‘do not know’ (10 respondents) and ‘rather not say (6 respondents).



Cases: 859

Four-fifths of respondents reported that they did not have free school meals as a pupil (83%), with fewer than one-in-ten reporting having school meals for most or all their school years (8%).

Throughout the report, differences are explored according to whether respondents took free school meals when a pupil.

What do the Numbers Mean? Is it Representative?

Self-selection is a given for any survey, particularly for online surveys using open invitations to respond. Although there are imbalances in the number of respondents across the UK, which go beyond differences in the respective population size, there is a sufficient spread of experience to explore differences among teachers of food education and the results from Scotland suggest that the survey population is broadly representative of the wider population.

3. What we Knew Beforehand: Rapid Review of Relevant Literature

Aim of Rapid Review

In this section of the report, we summarise the key findings from previously published research. What is presented is not a fully-fledged literature review; rather, it is a collation of evidence and expert opinion on five key issues:

- how poverty influences the experience of food education in school.
- relevance of food education to tackling poverty.
- wider value of food education.
- perceptions of food education; and
- issues related to the teaching of food education.

Approach to Rapid Review

Two academic search engines were used to identify literature to review – google scholar and GCU's Discover platform, both of which have an extensive reach. Keywords were used to identify academic literature that appeared to be pertinent to this project. The abstracts of papers published in the International Journal of Home Economics were also considered. Professor McKendrick reviewed the abstracts of these papers, preparing a rank order list of priority reading to inform this report.

SPIRU Student Researchers were trained to undertake a critical appraisal of literature and then allocated two papers over a two-week period to review, recording their appraisal using a standard template in an initial round of reviews. These reviews were collated and made available to all SPIRU Student Researchers. Annex 1 lists the 33 papers that were reviewed. Small groups of SPIRU Student Researchers were each allocated one theme to review and were tasked to draft a review of evidence for that theme by drawing on the collective set of 33 reviews, presenting key findings in bullet point form. Professor McKendrick quality assured these contributions and redrafted for inclusion in this report.

On Language

We use the language of the authors when reporting on findings. What many refer to as 'Home Economics' is more commonly known as 'Food Education' in much of the UK.

How Poverty Influences Experience of Food Education in School

The impact of poverty was considered for school education, and in the specific context of food education. The general problems that poverty presents for pupils was acknowledged in several studies. The adverse impacts of these stresses are experienced in food education and other subjects.

- Enns (2019, p. 56) contends that poverty impacts on the ability of pupils to function in schools, reporting that, "[a]s an experienced educational assistant explained, poverty affects everything including how a student thinks in school, if they are hungry, cold or worried it influences judgement, decision making, behaviour, memory and focus".
- Similarly, McEnaney (2019, p. 3) uncovered a range of barriers that children from lower income families can experience in taking part in the school day. Barriers were noted in relation to transport costs, uniform costs, accessing school meals and material barriers to in-school and home learning.
- Naven et al. (2019, p. 15) argue that curriculum charges should be removed, as this would help pupils from low-income families chose subjects on interest rather than cost.
- McEnaney (2019, p. 5) puts forth the family and environmental stress theory, arguing that money effects children's cognitive outcomes through high levels of parental stress. Parents on low-income experience significant stressors and negative impacts on mental health arising from the struggle to pay for day-to-day essentials. Charging to participate in home economics exacerbates these stresses where families find it difficult to pay.

Further to these general problems, was the acknowledgement that poverty impacts on how food education is received, or at least, that there is a need for greater acknowledgement of how poverty impacts on food education.

- Lean et al. (1991, p. 47) acknowledge that food education must be sensitive to the background of pupils if it is to be effective. They argue that early education in nutrition must take into account home circumstances and be sensitive to the danger of causing conflict between what the child is taught at school and the ongoing experiences at home.
- Lean et al. (1991), writing over thirty years ago, argued that the teaching of Home Economics may be hindered by the increased costs of food ingredients, recommending that it is accorded higher priority in budget allocations.
- Conger et al. (2010) and Mayer (1997, p. 4) found that children living in poverty fall behind more advantaged kids in Home Economics because poorer parents have fewer resources to invest in goods and services that directly or indirectly contribute to child development.
- Treanor (2018, p. 506) argues that "...school trips and costs for equipment such as cookery classes, become more of a problem for young people at high school".
- Ronto et al. (2017) observe that children in food education were often required to either pay a fee to cook food or to bring the ingredients with them. This impacted learning as some would forget to bring in the ingredients or simply could not afford to. They conclude that poverty has a major influence on a child's chance to take part in Home Economics. If a child cannot afford to buy the ingredients, they can be singled out from the rest of their classmates who are able to take part.

Relevance of Food Education to Tackling Poverty

Food education was presented as relevant to tackling poverty in various ways, with some acknowledging that this is a traditional focus of food education, and others focusing on its utility for addressing specific 'problems' such as obesity and budgeting.

Several writers argued that tackling poverty was a traditional focus of food education.

- McCloat & Caraher (2016, p.104) argue that "The discipline of Home Economics was initiated in 1908 as a world-wide response to social challenges of poverty, gender inequality and other social issues".
- McCloat & Caraher (2016) also contend that home economics education provides a variety of benefits, by supporting those from socially deprived areas, and providing them with the necessary tools to improve their lives in the future.
- Dixon (2016, p.16) contends that home economics promotes the well-being of individuals and families, including promoting food security.
- Janhonen et al. (2016, p.97) argue that home economics in Scandinavia now focuses on a wider range of social skills, whereas previously it was narrowly focused on providing dietary advice.
- The Department of Health and Social Security (1989) reached similar conclusions from their survey: home economics was primarily focused on the diet of children rather than teaching them other important skills.

Some perceive value in educating about diet, noting a high risk of problems arising from poor diets among more disadvantaged populations:

- Dixon (2016, p.21) values Home Economics for building upon food literacy and knowledge about nutrition. They perceive value in Home Economics for promoting healthy eating and combating the rising problem of obesity.
- Similarly, McCloat & Caraher (2016, p.5), note that the number of people who are overweight and obese is greater amongst lower socio-economic classes as well as the more disadvantaged groups in society including ethnic minorities and the disabled, arguing that food education could have a role to play in tackling this.

The narrow and more instrumental view of what food education can contribute to tackling poverty is acknowledged through its traditional function in enhancing basic life skills:

- Dixon (2016) concluded the value of the subject was associated with teaching basic life skills. This included food preparation, nutrition, healthy eating, and sustainability, particularly alongside the rising obesity levels.
- Enns (2019, p.60) notes that Home Economics is a key subject for helping build essential life skills such as sewing, cooking, and childcare. For many pupils, this is the first time they will have been exposed to learning such skills.
- Nanayakkara et al. (2018) view Home Economics as being a subject that remains relevant throughout life and one that is needed for children to become valued members of society.
- Wahlen et al. (2009, p.41), when researching food education teachers' perceptions of the (International Federation for Home Economics (IFHE) position statement, found that 50% of European respondents considered that the primary focus of home economics was as an arena for everyday living.

Home Economics was also valued for providing opportunities to develop budgeting skills (Haapala, 2014):

- Håkansson (2016, p. 271) found value in providing students with spending advice and encouraging them to 'be thrifty' with their money. Teaching children to understand 'best before' dates and how to shop efficiently on a budget improves their ability to manage finances more effectively.

Although such advice may be welcome, it may also be based on a 'deficit' model that presents pupils in poverty as lacking competency. This may also be evident in the thinking of Nanayakkara and Enns:

- Nanayakkara et al. (2018, p. 76) report that Home Economics can provide education on food knowledge and lifestyle skills to young, impoverished people to help prepare them for adulthood.
- Enns, S. E. (2019) concludes that home economics is a key subject for tackling poverty as it covers food, textiles, and family studies. It helps build essential life skills such as sewing, cooking and childcare as well as teaching soft skills like work attitude, communication and problem solving which are highly sought after by employers.

Wider Value of Food Education

Food education was positioned as being pertinent to the skills required to improve lives in the 21st Century.

Some argued that home economics was well placed to contribute to understanding sustainability, and that it could promote social justice:

- McCloat & Caraher (2016, p.7) argue that home economics education can address 21st century challenges to promote healthy and sustainable living for individuals, families, and society.
- Dixon (2016, p.16) notes that Home Economics engages a wide range of current issues and trends facing local and global communities, such as food security and sustainability.
- Renwick (2019) argues that Home Economics teaches pupils environmental awareness and how to become more sustainable. She describes an initiative on school gardens in Vancouver that set out to educate children on growing food and how to be ecologically responsible which has been seen to help young people become more mindful and responsible regarding food literacy.

More generally, others argued that food education facilitated the acquisition of soft skills that were required in the contemporary workplace.

- McGregor (2009) suggests that home economics positively empowers people by giving them a voice as well as increased self-efficacy, resulting in improved individual and family life and therefore better communities.
- Dixon (2016) acknowledges the 'soft skills' that emerge from teachings in Home Economics Education. He found that Home Economics enhances communication abilities, the capacity to empathize with others, and the ability to consider a range of viewpoints held by individuals and groups in society. He considers that this teaching on empathy is vital for children in understanding people from different socioeconomic backgrounds.
- Enns (2019, p.60) also values Home Economics for teaching soft skills like work attitude, communication, and problem-solving.

A more nuanced argument was that food education had unique opportunities to facilitate the acquisition of highly valuable soft skills:

- Furey et al. (2000) look beyond the instrumental value of Home Economics teaching children how to cook a meal at home. They reflect that relying on readymade meals rather than working with raw ingredients removes the opportunity for young minds to explore creativity (which food education can promote).
- Kihm and Knapp (2015) show how a poverty simulation with Family and Consumer Services (FCS) students led to an increased awareness of the prevalence of poverty as well as greater understanding of how various social services and government agency's function.
- Pendergast (2017, p.236) specifies three essential dimensions of home economics which contribute towards an increased quality of life: a focus on fundamental needs; the integration of knowledge, processes, and practical skills; and the capacity to take critical/ transformative/ emancipatory action.
- Nanayakkara et al. (2018, p.76) assert that many of the lessons taught in Home Economics can only be taught in the subject itself, thus highlighting its value in the school curriculum.

Culpan and Bruce (2007) highlight the skills which Home Economics develops, including, but not limited to "...understanding the relationship between power and knowledge, questioning assumptions, and power relationships, empowering people to take social action to achieve social justice and having the skills and knowledge to gain greater control over their lives". They advocate pursuing Home Economics through both socio-critical and socio-ecological perspectives (2007, p.29).

Equally forward-looking, McGregor (2019, p.5) argues that successful home economics interventions can serve to uplift human dignity, arguing that this could even strengthen national development.

Perceptions of Food Education

Several studies have explored perceptions of food education, from both those within and beyond the profession. The implications of these perceptions have been considered.

How food education is understood has been explored with parents, other school staff, young people, and teachers of food education.

- Dewhurst and Pendergast (2008) have studied the International Federation for Home Economics (IFHE) statement, *Home Economics in the 21st century (HM21C)* looking at how it has been perceived by home economics teachers in Australia and Scotland. They found that there was a high level of agreement on the multidisciplinary nature of the subject and its potential to prepare individuals for their personal and professional lives.
- Ronto et al. (2017, p.68) argue that parents and other school staff did not view Home Economics as important as other subjects.
- Dixon (2016, p.16) reported from a survey of 302 Home Economics teachers from Australia finding that teachers, students, and parents misinterpreted the value of Home Economics education, holding negative and demeaning attitudes towards the subject and its academic value. It is perceived to be a practical subject with little academic value. Home economics is often associated with domestic work rather than being applied to the more valued domain of the public sphere of work and employment.
- Nanayakkara et al. (2018, p.75) found that significantly more young adults than parents rated home economics as one of the most important subjects or the most important subject in years 11 and 12. *(Table 1 shows 53% of young adults in Year 11 believed economics to be as important as other school subjects, compared to 44% of parents).*
- Nanayakkara et al. (2018, p.76) also found that home economics was viewed as having similar importance to physical education, digital technologies, and health in school. Other core subjects such as maths and science-based subjects were rated more highly.

- Dixon (2016, pp.15-16) found that boys in Hong Kong were reluctant to participate in Home Economics due to the negative perceptions held by parents, teachers, peers, and further systemic issues which perpetuated negative perceptions of Home Economics including gender bias and low status.
- Slater and Hinds (2014, p.70), focusing on Canada, argue that although home economics is important, it is also perceived to be an easy subject.
- Slater and Hinds (2016, p.73) surveyed 206 university students, finding strong support for the subject in schools. It demonstrates the strong support that home economics education has amongst university students, as there is the common belief that the subject belongs in the school curriculum (96% believe that it belongs in schools and 88% felt it teaches important life skills).

As these perceptions are reported to be negative, the implications that follow are either noted to be damaging for the subject area, or as presented as points to be challenged:

- Dewhurst and Pendergast (2008, p.67) noted that although teachers from Scotland (93%) and Australia (91%) acknowledge the value of Home Economics, Home Economics teachers are found to feel disempowered by the marginalisation of their subject area and experience a great struggle to challenge modern-day perceptions of Home Economics.
- Smith and de Zwart (2010, p.10) share one teacher's opinion on the consequences of how the subject is viewed: **"**I think there are people out there in education who want to be teachers but still don't know [about home economics]. I don't know if they know you can go to university and study home economics." (Teacher with 3 years' experience)
- Nanayakkara et al. (2018, p.76) suggest that the Australian government's perception of home economics as a low-status subject might play a significant role in how perceptions of the subject are shaped in wider society.
- Dixon (2016, p.24) has argued that Higher and Further Education institutions have also been found to undermine the value of Home Economics education.

Issues Related to the Teaching of Food Education

Some studies have acknowledged a wide range of 'hindrances' that are hampering the potential of food education:

- Tsado (2010, p. 83) explored teachers' perception of constraints on Home Economics education in Minna. She identified 15 main hindrances to students' skill acquisitions including a shortage of qualified teachers, equipped laboratory, equipment, and tools, practical lessons, funds, and parental support. She considered that it was very difficult for students to acquire skills for self-reliance under these circumstances.

Specific challenges have been identified in some studies.

- Smith and de Zwart (2010, p.77) discuss the shortages of home economic teachers across the world but more specifically in the Province of Canada, British Columbia. This paper explains that over the past 25 years, home economics has been hit with an increased enrolment rate whilst there has been a growing shortage of home economic teachers.
- McGregor (2009, p.44) argues that home economics needs to be better understood due to the perception that it is a fractured profession, leading to a sense of powerlessness and lack of legitimacy, thereby undermining future prospects for the profession.
- Dewhurst and Pendergast (2008, p.66) identify long-lasting problems regarding the perceptions of Home Economics, including gender bias, low status, and commitment to name, which have plagued the field of Home Economics, highlighting the necessity of modernising the field to be suitable and applicable in the 21st Century.

Conclusion and Implications for Research

Strengths and weaknesses are identified in the literature. Our work complements this body of knowledge by examining the challenges faced in the UK amid a cost-of-living crisis.

4. Parental Contributions: A Summary

In the next three sections, we explore details relating to parental contributions in the form of providing ingredients (section 4), financial contributions (selection 5) and equipment and accessories (section 6). Here we described findings for two aggregate measures of parental contribution.

As we don't charge for the cost of ingredients, as required by the Scottish Government, I am concerned about future budget cuts and schools deciding not to offer food education due to the cost.

Class sizes should be capped to handle. Schools should provide ingredients like other subjects do - Art provide the resources needed to complete the lessons, science also provide all the experimental resources, PE also, so why food not?

We are well-supported and pupils enjoy the subject. Parents appreciate not having to provide ingredients or containers. We have seen numbers reduced at KS4 with more lower ability/SEND pupils opting for Food while higher ability pupils are being encouraged to follow the EBACC route. My concern is that as a subject we are considered expensive due to the cost of equipment and ingredients and as prices continue to increase, along with the cost of gas/electric, it does concern me that the subject will continue to be "cut back" in schools.

There is a huge disparity across the 6 secondary schools in my local authority never mind across the country. There needs to be national guidance on whether pupils contribute with ingredients or money and whether a department gets a technician or not. We are being paid the same amount as all other teachers on our pay grade but out conditions and workload are very very different.

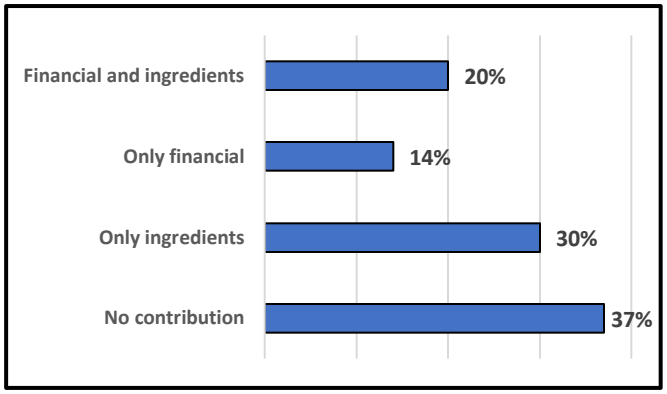
Financial Contributions and Supplying Ingredients

What we Asked

We asked, “which parents/guardians are asked to make a financial contribution to cover costs”, inviting respondents to choose from one of three options (all, some, or none). We also asked, “which pupils are asked to supply ingredients for cooking classes”, inviting respondents to choose from one of three options (all, some, or none). Here, we combine the results for both provide an overview of parental contribution.

Headlines

Two-thirds reported that at least some pupils were required to make either a financial contribution or a contribution in kind (supplying ingredients) toward the cost of food education.



Cases: 1032

However, these UK aggregate figures are misleading, and do not reflect the situation in any of the four nations of the UK, as is explained in the sub-section that follows.

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), all thirty respondents from Northern Ireland were required to contribute, as were 86% from England and 91% from Wales. Scotland was an outlier in the UK context: 98% of respondents from Scotland reported that no contribution was required (in cash or in kind).[34]

Variation According to School Profile (England)

In England, those from state-funded secondary schools were more likely to report that pupils were asked to contribute (90%, compared to 58% from independent schools).[5] Slightly more of those from schools maintained by the local authority asked pupils to contribute, compared to Academy schools (92% and 87%, respectively).

In England, those from schools in large urban conurbations were less likely to report that pupils had to contribute (75%, compared to 90% in smaller cities and towns outside the conurbations and 88% of those from rural areas).[6]

In England, those from larger schools were more likely to report that pupils were asked to contribute (62% of those from schools with less than 500 pupils, compared to 84% of those from schools with between 510 and 1000 pupils, and 92% of those with more than 1000 pupils).[7]

In England, those from schools in which a low proportion of pupils were entitled to free school meals were most likely to ask pupils to contribute (70% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 94% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and all fifty-eight of those with less than one-tenth of pupils entitled to FSM).[8]

In England, those who were from schools with a lower proportion of pupils whose first language is not English were more likely to ask pupils to contribute (91% and 93% of those with low and medium proportions [under 5% and between 5% and 10%, respectively], compared to 83% of those with a high proportion of pupils whose first language is not English [over 10% of pupils]).[9]

Variation According to Role

Management was more likely than teachers to report that pupils were asked to contribute (79% for management, compared to 56% for management).[10]

Variation According to Years in Profession

Those who have been working in the profession for a longer time were more likely than those with less experience to report that pupils were asked to contribute (69% of those with more than twenty years in the profession, compared to 65% of those with 11-20 years of experience, and 59% of those with less than ten years' experience).[11]

Issues and Implications

The differences across the UK are stark: pupils in Scotland generally are not asked to contribute, whereas pupils in England, Wales and Northern Ireland are asked to pay or provide ingredients (with one-in-five reporting that they are asked for both).

Notwithstanding that the majority are asked to contribute, in England it was reported that contributions were least likely to be asked in smaller schools, larger cities, and in schools with a higher proportion of pupils who were entitled to free school meals.

There is not equity of experience across the UK.

Financial Contributions, Supplying Ingredients and Providing Equipment

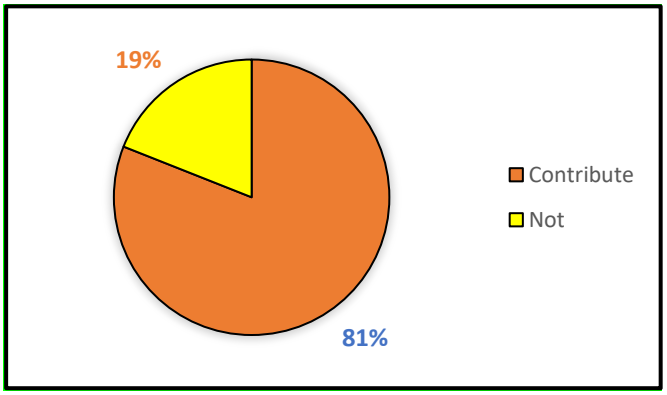
What we Asked

We asked, "which of the following are pupils asked to supply", inviting respondents to select all that applied from a list of six items of equipment and accessories that were presented. Space was also provided to indicate 'Other' equipment and accessories that pupils were asked to supply.

Here, we combine these data, with the results reported in the previous section (financial contributions and providing ingredients) to provide a summary of all parental contribution to food education.

Headlines

Four-fifths reported that at least some pupils were required to contribute toward food education.



Cases: 1036

Once more, these UK aggregate figures are misleading, and do not accurately reflect the situation in any of the four nations of the UK, as is explained in the sub-section that follows.

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), it was found that Scotland was once again an outlier in the UK context (although less markedly than before): whereas 54% of respondents from Scotland reported that no contribution was required, all thirty respondents from Northern Ireland were required to contribute, as were 91% from England and 96% from Wales.[12]

Variation According to School Profile (England)

In England, those from mixed-sex schools were more likely than those from single-sex schools to report that pupils had to contribute (91%, compared to 78% in mixed-sex schools).[13]

In England, those from state-funded secondary schools were more likely to report that pupils were asked to contribute (94%, compared to 70% from independent schools).[14] Slightly more of those from schools maintained by the local authority asked pupils to contribute, compared to Academy schools (95% and 90%, respectively).

In England, those from larger schools were more likely to report that pupils were asked to contribute (66% of those from schools with less than 500 pupils, compared to 89% of those from schools with between 510 and 1000 pupils, and 95% of those with more than 1000 pupils).[15]

In England, those from schools in which a low proportion of pupils were entitled to free school meals were most likely to ask pupils to contribute (77% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 97% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and all fifty-eight of those with less than one-tenth of pupils entitled to FSM).[16]

Variation According to School Profile (Scotland)

In Scotland, those from schools in which a low proportion of pupils were entitled to free school meals were most likely to ask pupils to contribute (43% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 54% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 69% of those with less than one-tenth of pupils entitled to FSM).[17]

In Scotland, those from schools in which a low proportion of pupils came from the most deprived areas were most likely to ask pupils to contribute (63% of those from schools in which less than one quarter of pupils were from Scotland's 20% Most Deprived Areas, compared to 43% of those from schools with more than one-quarter of pupils from Scotland's Most Deprived Areas).[18]

Variation According to Role

Management was more likely than teachers to report that pupils were asked to contribute (89% for management, compared to 78% for teachers).[19]

Issues and Implications

These findings reinforce those of the previous section, with fewer pupils in Scotland generally asked to contribute to the cost of food education.

It is also significant that in both England and Scotland, contributions were least likely to be asked in schools with a higher proportion of pupils who were entitled to free school meals.

5. Supplying Ingredients

We wanted to find out whether pupils were being asked to supply ingredients for food education classes.

For those who were asked to supply ingredients, we canvassed details on the:

- age-stage at which they were asked to supply ingredients,
- which (if any) pupils were exempt from supplying,
- the implications if pupils did not supply ingredients,
- the notice that was given,
- teachers' perception of whether the ingredients pupils were asked to supply would be readily available at home, and
- what (if any) information was provided to parents/guardians to assist them to source ingredients.

No other subject would expect the student to supply all the equipment or to bring money in to pay for resources. However, to provide a relevant, valuable and enjoyable curriculum which provides life skills, it is a necessity as budgets do not account for food supplies.

I think it's important that students either bring ingredients or contribute. Schools can have store cupboard ingredients to help reduce costs and possible waste if ingredients that will never be used again in the home are required. I've worked previously in a school where all ingredients were provided and more often than not finished dishes were thrown out.

The time allocated to food isn't great neither is the 1 hour lessons. This means that some practicals are very rushed and doesn't give the students the time to fully master the skills. Having not gone to school in the U.K. (I'm Danish) I amused to all ingredients being provided for all students while at school and the variety of ingredients we used were much bigger, e.g., the teacher might bring trays of live fresh fish, we would be allowed to pick our own dishes in families (small groups) and we would have sufficient time to sit down and eat our food after cooking.

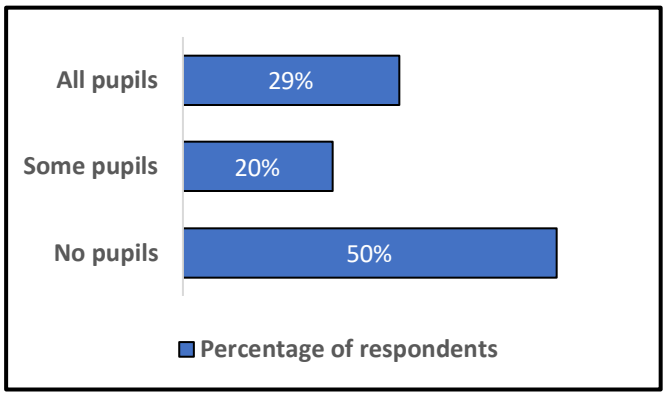
How Many Pupils are Asked to Supply Ingredients for Cooking Classes?

What we Asked

We asked, "which pupils are asked to supply ingredients for cooking classes", inviting respondents to choose from one of three options (all, some, or none).

Headlines

One-half of respondents reported that 'no pupils' were asked to supply ingredients for cooking classes (50%); in contrast, approaching one-third reported that 'all pupils' were asked to supply ingredients (29%).



Cases: 1036

Once more, these UK aggregate figures are misleading, and do not reflect the situation in any of the four nations of the UK, as is explained in the sub-section that follows.

Variation Across the UK

The UK totals disguise significant differences across its four nations.[20] Almost all schools in Scotland reported that 'no pupils' were asked to contribute (98%). When the Scottish-skew is removed, only one-quarter of schools in the rest of the UK do not ask pupils to contribute (28% for the rest of the UK), with the most common experience being that all pupils are asked to contribute (42% for the rest of the UK).

Variation According to School Profile (England)

In England, those from independent schools were less likely than those from state-funded secondary schools to report that pupils were asked to supply ingredients (43% compared to 77%).[21] Of course, parents are already making a direct financial contribution to their child's education in independent schools. There was no difference between Academy schools and schools that were maintained by their local authority.

In England, those from urban areas were most likely to report that pupils were not asked to supply ingredients (45% of those from large urban conurbations, compared to 24% of those from other urban areas, and 21% of those from rural areas).[22]

In England, those from smaller schools were most likely to report that pupils were not asked to supply ingredients (62% of those from schools with less than 500 pupils, compared to 32% of those from schools with between 510 and 1000 pupils, and 20% of those with more than 1000 pupils).[23]

In England, those from schools in which a high proportion of pupils were entitled to free school meals were most likely to report that pupils were not asked to supply ingredients (57% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 16% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 3% of those with less than one-tenth of pupils entitled to FSM).[24]

Variation According to Role

Teachers were more likely than management to report that 'no pupils' are asked to supply ingredients for cooking classes (55% for Teachers, compared to 36% for management).[25]

Variation According to Years in Profession

Respondents who had worked for more than 20 years were less likely than those who had worked for 11-20 years, who in turn were less likely than those who had worked for up to 10 years to report that 'no pupils' are asked to supply ingredients for cooking classes (44%, 48% and 53%, respectively).[26]

Issues and Implications

There are significant differences across the UK, with many families being expected to contribute to the cost of food education outside of Scotland, as there is currently no national policy or funding for ingredients provision outside Scotland.

Age Stage at Which Pupils are Asked to Supply Ingredients

What we Asked

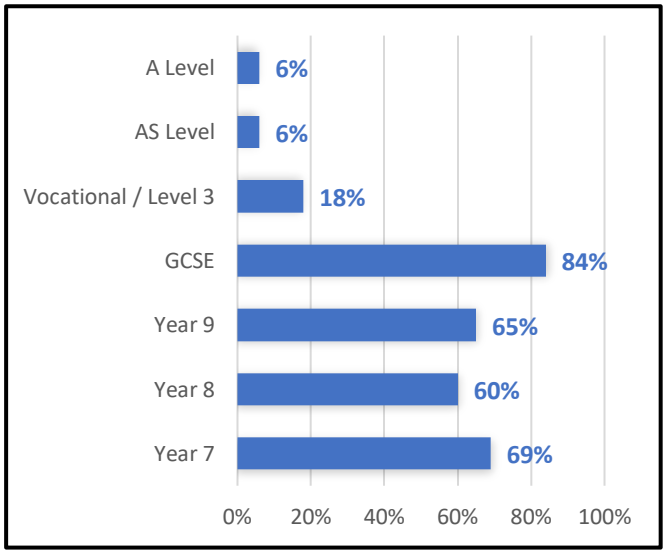
We asked two follow-on questions to those who responded, "some pupils" (211 respondents) when asked, "which pupils were asked to supply ingredients for cooking classes".

First, we asked "at which age-stages of secondary/high school are pupils asked to supply ingredients for cooking classes". Acknowledging the different education systems across the UK, different options were presented for (i) England & Wales, (ii) Northern Ireland, and (iii) Scotland. Respondents were asked to select all age-stages that applied from the options that were presented.

Headlines Where Some (but not All) Pupils Contribute Ingredients in England and Wales

In the chart below, we present results for England and Wales. There were insufficient returns to profile across age-stages in Northern Ireland, and very few schools in Scotland asked pupils to supply ingredients.

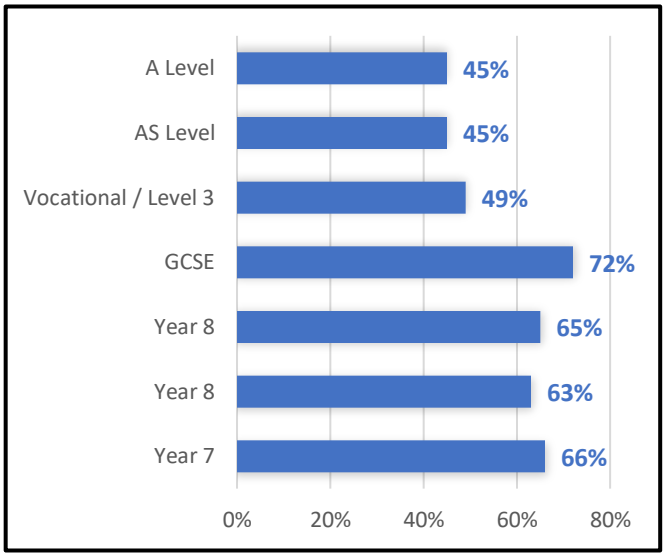
Around two-thirds of respondents reported that pupils were asked to supply ingredients in the early years of secodnary school. In contrast, a minority were asked to supply ingredients at advanced levels. GCSEs were an outlier, with more than four-fifths reporting that pupils were asked to supply ingredients (84%).



Cases: 172

Whole-Sector Headlines for England and Wales

It should be acknowledged that the 'headline' data in the previous chart only pertains to schools in which "some but not all" pupils were asked to supply ingredients. To gain an understanding of which age-stages are asked to contribute ingredients across the sector, it is necessary to add totals for "some pupils" (reported above) to "no pupils" and "all pupils" (from the feeder question). An additional 249 respondents from England and Wales reported that 'all pupils' had to supply ingredients and 161 reported that 'no pupils' were required to supply ingredients.



Cases 582

Different conclusions are drawn from these data in England and Wales. Almost one-half of pupils are expected to contribute at advanced levels, and around two-thirds of pupils were asked to contribute to cost in the early years of secondary school in England and Wales. No variations across the survey population were explored for these data.

Issues and Implications

If the cost of food education is a barrier to participation, then this will be most keenly felt at GCSEs in England and Wales, despite being a national curriculum subject.

Which Pupils Are Not Asked to Supply Ingredients?

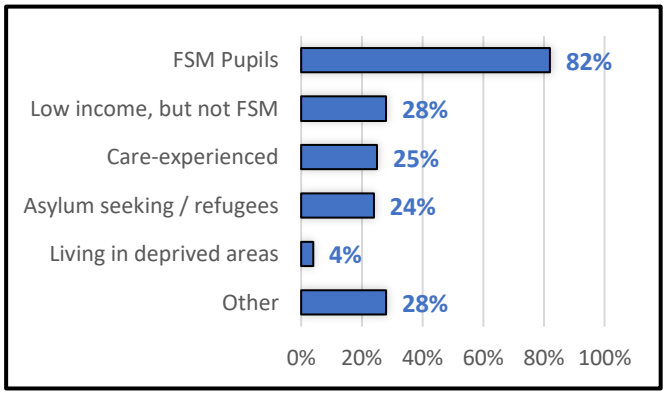
What we Asked

The second follow-on question to those who responded, "some pupils" when asked, "which pupils were NOT asked to supply ingredients for cooking classes" (211 respondents), considered pupils' social profile.

We asked, "which of these pupils are NOT asked to supply ingredients for cooking classes". Respondents were asked to select all that applied from five options that were presented. Space was also provided to indicate 'Other' groups of pupils who were not asked to provide ingredients.

Headlines Where Some (but not All) Pupils Contribute Ingredients

Four-fifths of respondents reported that pupils who were entitled to free school meals were not asked to supply ingredients (82%), with a range of other demographic groups also excused from contributing.

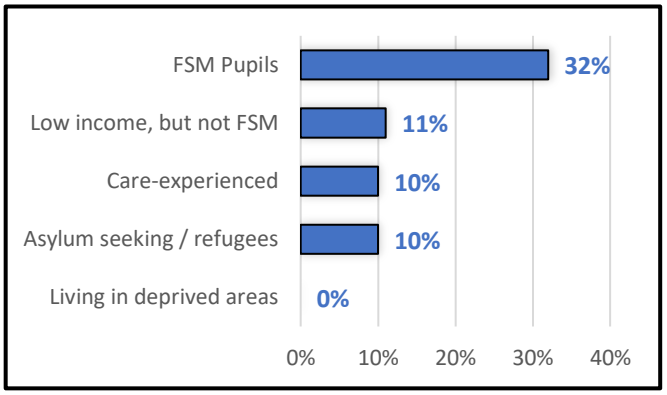


Cases: 198

Headlines if Pupils are Asked to Contribute Ingredients

It should be acknowledged that the data in the previous chart only pertains to schools in which "some but not all" pupils were asked to contribute ingredients.

As for age-stage variation reported previously, it is useful to also understand which groups of pupils are asked to contribute ingredients in all schools where contributions are required, i.e., adding totals for "some pupils" (reported above) and "all pupils" (from the feeder question).

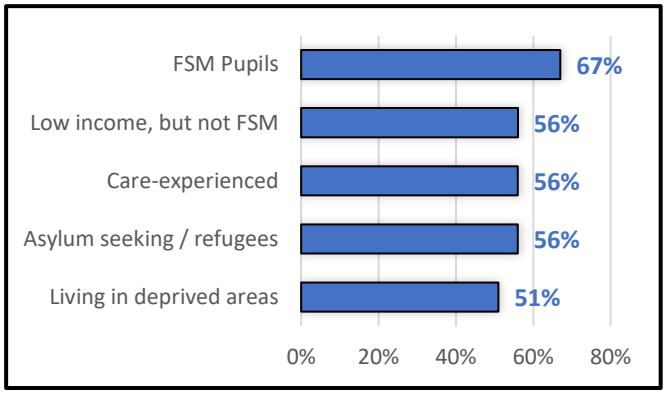


Cases: 335

This adds a different complexion to the results. It is now evident that exemptions are atypical in schools where pupils are asked to supply ingredients: only one-third report that exemptions are made for pupils entitled to free school meals (32%).

Whole-sector Headlines

For a rounded perspective, it is also important to take account of the majority who reported that 'no pupils' were asked to supply ingredients (from the feeder question).



Cases: 1023

Once more, a very different complexion on the findings is presented. We now find that most respondents, from a wide range of demographic groups, report that pupils can either seek an exemption or are not required to provide ingredients.

No variations across the survey population were explored for these data.

Issues and Implications

The Scottish-skew distorts the whole-sector headlines, with the summary data not accurately representing the situation elsewhere in the UK (or indeed in Scotland).

Although entitlement to free school meals is most likely to be used where exemptions are applied, most pupils who are entitled to free school meals are required to contribute to the cost of food education (by providing ingredients). The approaches to school meals (subsidising cost for low-income families) and food education ingredient supply (requiring many low-income families to contribute) are inconsistent in many schools.

It should also be acknowledged that when any single indicator of poverty is used as a 'passport' to subsidise and facilitate participation – FSM-included – there is a risk that not all children in low-income households will be eligible.

Implications if Pupils do not Supply Ingredients

What we Asked

We asked four further follow-on questions to those who responded either "some pupils" or "all pupils" when asked, "which pupils were asked to supply ingredients for cooking classes" (516 respondents).

We asked, "how does your school respond if pupils do not supply ingredients for cooking classes", listing ten actions, from which respondents were asked to indicate all that applied in their school. An 'Other' option was also offered.

Headlines

The most common response to pupils not supplying ingredients was to allow the pupil to take part, with the school supplying ingredients (56%). Although this was an 'inclusive' approach, there were several examples of more punitive responses, such as penalising pupils with loss of behaviour/merit points (29%) or not permitting pupils to undertake practical work (32%).

56%	Take part, school provides ingredients
35%	Parents notified that no ingredients were brought
32%	Observe, but do not do practical work
29%	Pupils penalised with loss behaviour/merit points
20%	Take part, if other pupils share ingredients
14%	Do not observe or do practical work
10%	Pupils sanctioned with detention
7%	If persists, pupils do not take part
5%	Take part, but do not take food home
2%	Take part as other pupils told to share ingredients
6%	Other

Cases: 516

We explored variation according to whether pupils were permitted to take part with the school supplying ingredients..

We also explored variation according to whether pupils were able to observe without undertaking practical work (no significant differences) and were penalised with loss of behavioural or merit points.

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), a far higher proportion (and majority) of respondents from England and Northern Ireland compared to Wales reported pupils could be penalised in line with behavioural policy.

Variation According to School Profile (England)

In England, those from schools in which a high proportion of pupils were entitled to free school meals were most likely to report that pupils who did not supply ingredients were permitted to take part and take the food home, with the school supplying ingredients (74% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 58% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 46% of those with less than one-tenth of pupils entitled to FSM).[27]

In England, deducting behaviour or merit points for not supplying ingredients was only reported in state-funded secondary schools (31%, compared to no independent schools).[28]

In England, deducting behaviour or merit points for not supplying ingredients was more characteristic of Catholic schools, compared to non-denominational schools and Church of England schools (50%, 28% and 14%, respectively).[29]

In England, deducting behaviour or merit points for not supplying ingredients was more characteristic of schools in urban areas (39% of those in large conurbations, compared to 31% in other urban areas and 16% in rural areas).[30]

In England, deducting behaviour or merit points for not supplying ingredients was more characteristic of larger schools (6% of those from schools with less than 500 pupils, compared to 21% of those from schools with between 510 and 1000 pupils, and 37% of those with more than 1000 pupils).[31]

In England, deducting behaviour or merit points for not supplying ingredients was more characteristic of schools in which a low proportion of pupils were entitled to free school meals (20% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 30% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 43% of those with less than one-tenth of pupils entitled to FSM).[32]

Issues and Implications

It should not be assumed that all pupils who do not supply ingredients (if required) do so on account of their families being unable to meet the cost of supplying ingredients. To interpret the table as punishment for low-income families would be erroneous. Nevertheless, it is reasonable to expect that many of these pupils who do not supply ingredients will be from low-income families, and in these instances punitive responses from schools could be judged as unjust.

For the most part, schools are reported to take an inclusive approach when pupils do not supply the ingredients as asked (most commonly with the school supplying the ingredients to enable the child to take part). However, in a significant minority of cases, the consequence is a lesser educational experience (e.g., the pupil observes the lesson, but does not take part in practical work) or is punitive (e.g., pupils are not permitted to take the food home).

Once more, there are differences among schools in England, with less punitive approaches being more characteristic of schools with more pupils entitled to free school meals. It is also notable that deducting merit points for not supplying ingredients was only reported in state-funded secondary schools.

Notice Required for Ingredients Required

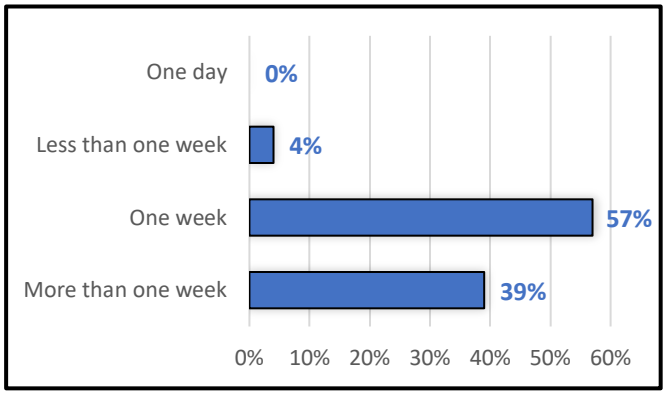
What we Asked

The second follow-on question to those who responded either "some pupils" or "all pupils" when asked, "which pupils were asked to supply ingredients for cooking classes" (516 respondents), considered notice provided.

We asked, "how much prior notice do pupils/parents/guardians get for what ingredients are required", inviting respondents to choose one from four options (ranging from "one day" to "more than one week"). We also offered an "Other" option (3 respondents).

Headlines

Most respondents reported that parents were given one weeks' notice (57%), with just over one-third given more notice than this (39%).



Cases: 508

We explored differences between those who were given more than one week notice and those who were not (bringing together one week and less than one week's notice).

Variation by Gender

Men were more likely than women to report that they gave more than one week's notice of ingredients required (63% of men, compared to 38% of women): however, these gender differences are based on a small number of male respondents (19).[33]

Issues and Implications

Most families are given at least one week's notice of the ingredients that they are required to provide. Short notice can be problematic for low-income families, most of whom are paid monthly (and budget accordingly).

Ready Availability of Ingredients at Home

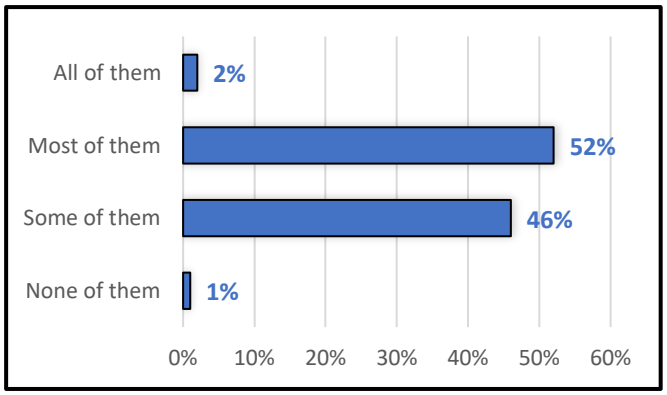
What we Asked

The third follow-on question to those who responded either "some pupils" or "all pupils" when asked, "which pupils were asked to supply ingredients for cooking classes" (516 respondents), considered perceptions of whether ingredients were likely to be readily available at home.

We asked, "to the best of your knowledge, how much of these ingredients will be readily available at home", inviting respondents to choose one from four options (ranging from "all of them" to "none of them"). We also offered a "don't know" option (43 selected this option) and an "Other" option (2 selected this option).

Headlines

Those who were able to express an opinion, were divided between those who thought that 'most' or 'some' ingredients that pupils were asked to bring would be readily available at home.



Cases: 465

We explored differences between those who perceived that parents would have 'all' or 'most' ingredients, to those who perceived they would only have 'some' or 'none' of them.

Variation According to School Profile (England)

In England, those who were not from non-selective schools were most likely to report that they perceived that many of the ingredients required would be readily available at home (78% compared to 54% of those surveyed from non-selective schools).[34]

Issues and Implications

Fewer than one-half of schools are confident that parents/guardians are being asked to supply ingredients for food education that they are likely to have at home (taking together those who were unsure and unable to answer this question, and those who thought that parents/guardians would have none of the ingredients or would only have ready to access to some of them).

More consideration could be given to whether the asks of parents are reasonable if there is uncertainty or reasonable grounds to expect that families will not have ready access to these ingredients at home.

Information Provided to Parents About Ingredients

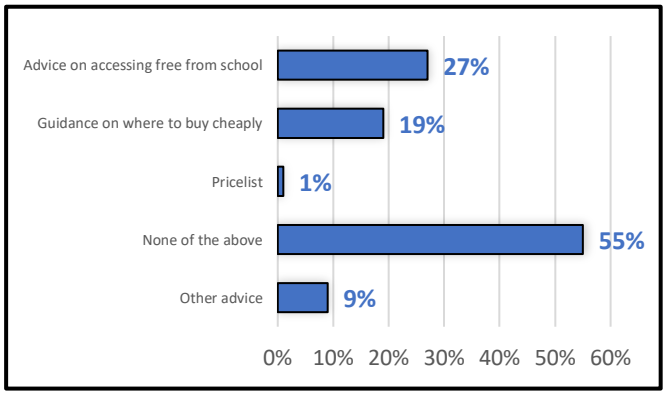
What we Asked

The final follow-on question to those who responded either "some pupils" or "all pupils" when asked, "which pupils were asked to supply ingredients for cooking classes" (516 respondents), considered whether advice was provided to parents on sourcing ingredients.

We asked, "are any of the following made available when asking pupils/parents to supply ingredients", listing three actions, from which respondents were asked to indicate all that applied in their school. We also offered a "none of the above" and an "Other" option.

Headlines

Most reported providing no advice to parents in relation to the ingredients that were requested from pupils (55%). Only one-quarter reported providing advice on how to access ingredients for free from school (27%) and only one-in-five offered guidance on where to buy ingredients cheaply (19%).



Cases: 509

We explored whether there were differences according to advice provided to parents/guardians.

Variation According to Role

Teachers were more likely than management to report that no advice was offered to parents/guardians (58% of teachers, compared to 48% of management).[35]

Issues and Implications

Advice to support parents in providing ingredients for food education is lacking in most schools.

It would be useful to share experiences of providing this support to families, and to appraise whether this is impactful work that should be undertaken by teachers of food education.

6. Financial Contributions

We wanted to find out whether pupils were being asked to make a financial contribution to cover the costs of food education.

For those who were asked to make a financial contribution, we canvassed details on:

- which (if any) pupils were exempt from contributing,
- whether contributions were voluntary or compulsory,
- whether there was a recommended (or expected) amount to be paid,
- what the amount was (and how often it was expected) noting variations by age-stage,
- whether the amount requested had changed this school year, and
- details of how the financial contribution was collected.

If there was enough money, it would be better to not have to ask for a contribution from the pupils. However, it is good that they have some idea about the costs incurred. In Years 12, 13 and 14 we offer "Enrichment" courses and the Hospitality option is frequently one of the most popular choices - the pupils clearly enjoy getting into the kitchen.

Feel the subject is underfunded. Core curriculum funding stopped us asking for a small contribution from pupils. This funding has not dropped down from our authority and we have had to cut fun interesting lessons as we have no idea if we can afford them. Don't know when and how much we will receive. Problem of auxiliary help . we are lucky to have full time support as we are three part time teachers in department at present support person is absent for months and we are struggling to shop and do set ups , change overs etc.

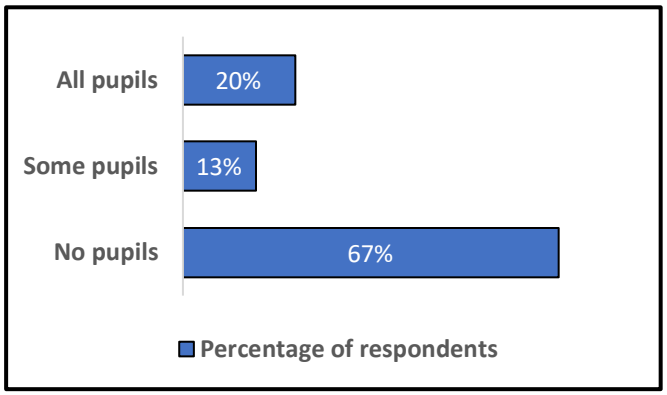
How many pupils are asked to make a financial contribution for cooking classes?

What we Asked

We asked, "which parents/guardians are asked to make a financial contribution to cover costs", inviting respondents to choose from one of three options (all, some, or none).

Headlines

Most reported that pupils were not asked to make a financial contribution (67%), although one-in-five reported that all pupils were required (20%).



Cases: 1032

Once more, these UK aggregate figures are misleading, as is explained in the sub-section that follows.

Variation Across the UK

Once again, the UK totals disguise significant differences across its four nations.[36] Almost all schools in Scotland reported that 'no pupils' were asked to contribute (99.6%). When the Scottish-skew is removed, the proportion in the rest of the UK who are reported not to ask their pupils to contribute falls to 57% (still a majority).

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), a far higher proportion (and majority) of respondents from Northern Ireland reported that 'all pupils' were asked to make a financial contribution.

Variation According to School Profile (England)

In England, those who were not from non-selective schools were most likely to report that parents were asked to make a financial contribution (46% , compared to 32% of those surveyed from non-selective schools).[37]

Variation According to Role

Teachers were more likely than management to report that 'no pupils' were asked to make a contribution (74% of teachers, compared to 58% of management).[38]

Issues and Implications

As for supplying ingredients, there are significant differences across the UK, with many families asked to make a financial contribution to the cost of food education outside of Scotland. On the other hand, schools in England, Wales and Northern Ireland are more likely to ask families to supply ingredients than make a financial contribution.

Which Pupils Are Not Asked to Make a Financial Contribution?

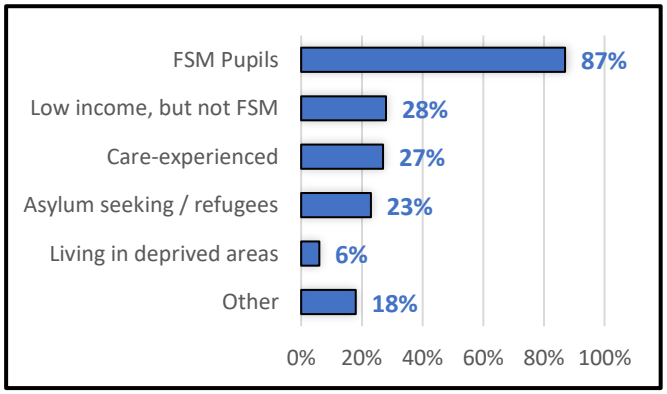
What we Asked

We asked a follow-on question to those who responded, "some pupils" (135 respondents) when asked, "which parents/guardians are asked to make a financial contribution to cover costs".

We asked, "which parents/guardians are NOT asked to make a financial contribution toward the cost". Respondents were asked to select all that applied from five options that were presented, replicating those from the question that asked which groups were not asked to supply ingredients. Space was also provided to indicate 'Other' groups of pupils who were not asked to make a financial contribution.

Headlines Where Some (but not All) Pupils Make a Financial Contribution

Almost nine-in-ten respondents reported that pupils who were entitled to free school meals were not asked to make a financial contribution to food education (87%), with a range of other demographics also excused from contributing.

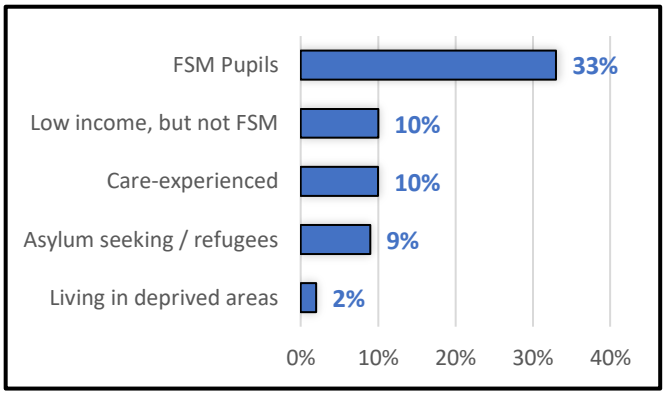


Cases: 126

Headlines If Pupils are Asked to Make a Financial Contribution

It should be acknowledged that the 'headline' data in the previous chart only pertains to schools in which "some but not all" pupils were asked to make a financial contribution.

It is useful to also understand which groups of pupils are asked to make a financial contribution in all schools where contributions were required, i.e., adding totals for "some pupils" (reported above) and "all pupils" (from the feeder question).

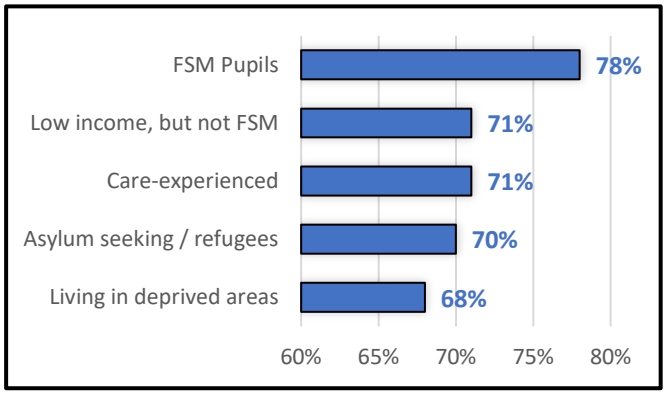


Cases: 335

As for ingredients, this adds a different complexion on the results. It is reported that exemptions are atypical in schools where pupils are asked to make a financial contribution: only one-third report that exemptions are made for pupils entitled to free school meals (33%).

Whole Sector Headlines

For a rounded perspective, it is also important to take account of the majority who reported that no pupils were asked to make a financial contribution.



Cases: 1023

Once more, a very different complexion on the findings is presented. We find that most respondents report that pupils can either seek an exemption or are not required to contribute financially from a wide range of demographic groups.

No variations across the survey population were explored for these data.

Issues and Implications

As for ingredients, the Scottish-skew distorts the whole-sector headlines, with the summary data not accurately representing the situation elsewhere in the UK (or indeed in Scotland).

Although entitlement to free school meals is most likely to be used where exemptions are applied, most pupils who are entitled to free school meals are required to make a financial contribution to the cost of food education. As for ingredients, the approaches to school meals (subsidising cost for low-income families) and food education (requiring many low-income families to contribute) are inconsistent in many schools.

Expectations Surrounding the Financial Contribution Pupils are Asked to Make

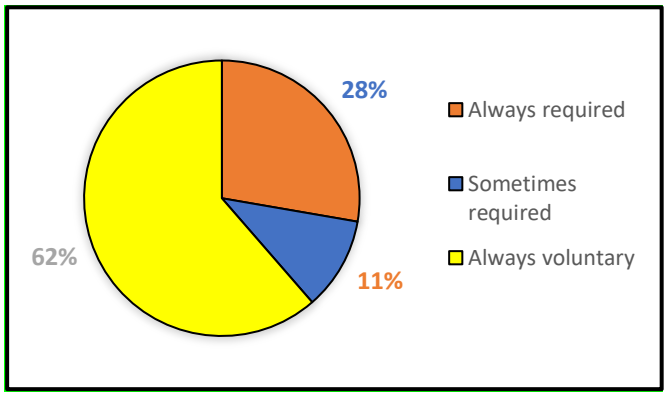
What we Asked

We asked three further follow-on questions to those who responded either "some pupils" or "all pupils" when asked, "which parents/guardians were asked to make a financial contribution".

We asked, "for those who are asked to make a financial contribution, are they …", inviting them to select from "always required", "sometime required", "sometimes voluntary" or "always voluntary". We invited explanations for those who indicated variation (sometime required, sometimes voluntary).

Headlines

In almost two-thirds of cases where pupils are expected to make a financial contribution, this is presented as voluntary, rather than required (62%): on the other hand, in one quarter of cases pupils are always required to make a financial contribution to the cost of ingredients (28%).



Cases: 201

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), the eight respondents from Wales reported that contributions were always voluntary, as did more than two-thirds of those from England (70%): in contrast, eighteen of the twenty-five respondents from Northern Ireland (72%) reported that contributions were always required.

Variation According to School Profile (England)

In England, those who were schools with a lower proportion of pupils whose first language is not English were more likely to report that financial contributions were always voluntary (76% and 78% of those with low and medium proportions [under 5% and between 5% and 10%, respectively], compared to 58% of those with a high proportion of pupils whose first language is not English [over 10% of pupils]).[39]

Issues and Implications

Compulsion to make a financial contribution to the cost of food education is a minority experience.

Is There a Recommended Amount for the Financial Contribution?

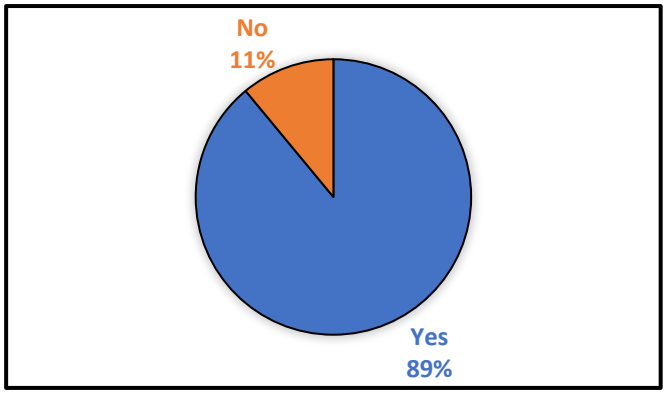
What we Asked

The second follow-on question to those who responded either “some pupils” or “all pupils” when asked, “which parents/guardians were asked to make a financial contribution” considered recommended amount.

We asked, “is there a recommended amount for the financial contribution”, inviting respondents to indicate “yes” or “no”.

Headlines

Most of those who reported that financial contributions were requested, noted that a recommended amount was suggested (89%).



Cases: 324

Issues and Implications

For the most part, the recommended amount (of the voluntary contributions asked of parents/guardians) is clearly stated by staff.

How Much is the Recommended Financial Contribution?

What we Asked

We asked two follow-on questions to those who indicated that there was a recommended amount of parental financial contribution.

We asked, "how much are parents/guardians asked to contribute". We asked for information on (i) how much in £; (ii) how often is the contribution made; (iii) inviting them to provide both details for each age-stage in their school. The response options were presented in a way that acknowledged the different education systems across the UK.

Financial Contributions by Age-Stage

As for ingredients, pupils are most likely to be asked to make a financial contribution, prior to the years when they are working toward a qualification (i.e., in years 7-9 in England and years 8-10 in Northern Ireland). Indeed, there were insufficient data from qualification-awarding years to faciliate further analysis of financial contributions required or expected of pupils.

Regularity of Financial Contributions by Age-Stage

Most financial contributions were annual, although annual payments became less common through the year groups. Payments by class and by term became more common through the year groups, while payment by rotation became less common.

	Year Group		
Regularity	Year 7 (EW) Year 8 (NI)	Year 8 (EW) Year 9 (NI)	Year 9 (EW) Year 10 (NI)
Class	7%	11%	19%
Week	1%	1%	3%
Fortnight	2%	2%	-
Month	-	-	1%
Rotation	10%	9%	2%
Term	6%	7%	17%
Annual	74%	70%	58%
Cases	*175*	*170*	*150*

Range of Financial Contribution by Regularity of Contribution

The range of financial contribution was broadly consistent across the first three years of senior schooling (in England, Wales, and Northern Ireland).

Payments by class ranged from 50p to £4; payments by rotation ranged from £1 to £20; and payments by term ranged from £2 to £30.

Variation in Annual Financial Contribution

Variations in annual payment for food education were broadly consistent across the first three years of senior schooling (in England, Wales, and Northern Ireland).

	Year Group		
Annual Contribution	Year 7 (EW) Year 8 (NI)	Year 8 (EW) Year 9 (NI)	Year 9 (EW) Year 10 (NI)
Range	£1 - £60	£1 - £60	£2 - £60
Mean	£12.50	£14	£15.25
Mode	£10	£15	£15
Distribution			
£5 or less	22%	21%	18%
£5.01 - £10	30%	27%	23%
£10.01 - £15	24%	25%	25%
£15.01 - £20	14%	15%	13%
> £20.0	10%	12%	10%
Cases	*134*	*131*	*119*

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), the majority of the twenty respondents from Northern Ireland reported that annual contributions were at least £15, compared to only 14% of respondents from England.

Issues and Implications

In the absence of national policy, significant variation is evident in what is asked of families across schools in England, Wales, and NI.

Has Recommended Financial Contribution Changed This Year?

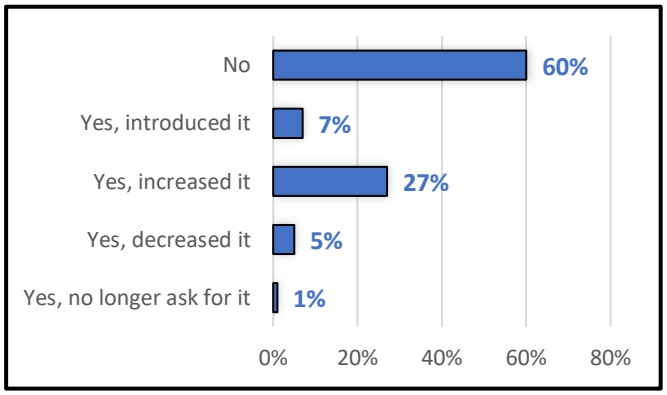
What we Asked

The second follow-on question to those who indicated that there was a "recommended amount of parental financial contribution", considered changes in level during this financial year.

We asked, "has the amount changed this year", clarifying that this meant from the start of the school year or during the school year. Five response options were provided, i.e., "no", "yes, we have started asking for a contribution", "yes, it has increased", "yes, it has decreased" and "yes, we no longer ask for a contribution". In this instance, respondents were not offered a fixed response to opt-out of the question.

Headlines

Of the 259 respondents who reported that a financial contribution was made, the majority (60%) reported that there was no change to the amount of financial contribution required this year. Just over one-quarter of respondents reported that the amount of contribution required had increased this year (27%).



Cases: 259

We explored whether there was variation between those who had experience of asking for an increase (introduced, or an increase to what was requested beforehand) and those who did not (no longer asked, reduced ask, or no change in amount asked).

Variation According to Years in Profession

Those who have been working in the profession for a long time were less likely to report an increase in the parental contribution this school year.
(20% of those with more than twenty years in the profession, compared to 40% of those with 11-20 years of experience, and 39% of those with less than ten years' experience).[40]

Issues and Implications

Overall, these results could be viewed as positive given that two-thirds of schools had either removed, reduced, or frozen the amount families were asked to contribute. On the other hand, one-third had increased the amount asked at a time when families were encountering wider pressures on their incomes with the rising 'cost of living'.

How is Financial Contribution Collected?

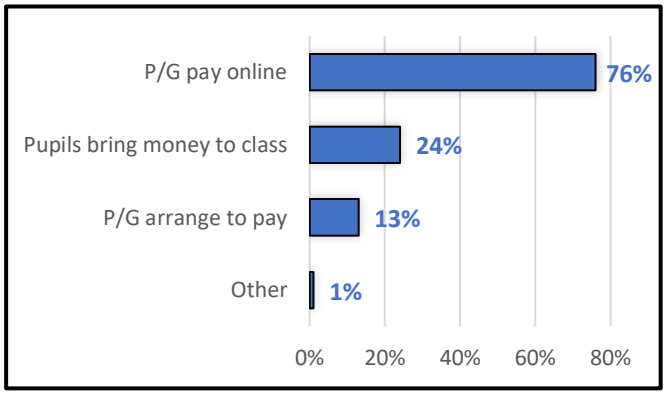
What we Asked

The final follow-on question to those who responded either "some pupils" or "all pupils" when asked, "which parents/guardians were asked to make a financial contribution" considered collection.

We asked, "how is this financial contribution collected", inviting respondents to indicate "yes" or "no". Respondents were asked to select all that applied from three options that were presented. Space was also provided to indicate 'Other' means of paying.

Headlines

Where a financial contribution was required, in most instances this was collected through online payment from parents/guardians (76%). Few schools offered multiple means of payment.



Cases: 287

We explored whether there were differences according to whether pupils were asked to bring money to class.

Variation According to School Profile (England)

In England, those from schools in which a high proportion of pupils were entitled to free school meals were most likely to report that pupils brought money to class when making their financial contribution (37% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 15% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 7% of those with less than one-tenth of pupils entitled to FSM).[41]

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), the ability for pupils to pay in class was more commonly reported in Northern Irelands (56%) and Wales (three of the eight respondents), then England (19%).

Issues and Implications

Arguments could be posited in favour of each approach for collecting financial contributions to food education. For example, facilitating payment outside the classroom removes the burden of collection from food education staff, although maintaining the ability to pay in cash may be preferable to those households who do not use online financial services.

The key consideration would be to ensure that where pupils are required to bring money and pay in class, processes are in place to enable this to be undertaken in a non-stigmatising manner. It would be useful to share experiences of these practices, and to appraise the issues pertaining to in-class payment.

Although permitting payment in cash may demonstrate an awareness that this is more convenient for low-income families, it heightens the visibility of cash transactions among pupils in class.

7. Equipment and Accessories

We included a single multiple response question to canvass details of alternate (other than payment or ingredients) ways in which pupils were expected to contribute to their food education.

Aside from my budget for ingredients, my department budget is allocated the same as any other department but we have to pay for so many consumables for example, washing detergent, laundry detergent, clingfilm, foil etc. I feel this is unfair as it limits me for buying other materials and resources.

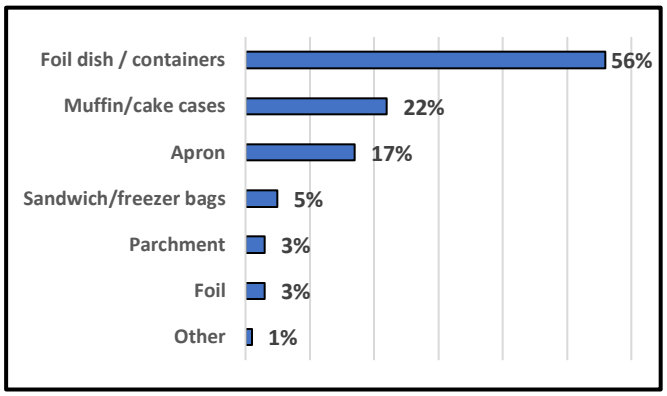
Equipment and Accessories

What we Asked

We asked, "which of the following are pupils asked to supply", inviting respondents to select all that applied from a list of six options that were presented. Space was also provided to indicate 'Other' equipment and accessories that pupils were asked to supply.

Headlines

Most reported that pupils were required to supply foil dishes and containers for food (56%), with only a minority of pupils being asked to supply the other equipment on which expectations were canvassed.



Cases: 1021

We explored whether there were differences according to whether pupils were asked to bring foil dishes and containers, and aprons.

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), it was found that respondents from England were more likely to report that pupils were required to bring foil dishes or containers to collect food (62% in England, compared to 48% in Scotland, 41% in Wales and 33% in Northern Ireland).[42]

Variation According to School Profile (Scotland)

Those from schools in Scotland with a higher proportion of children who are entitled to free school meals were less likely to report that pupils were required to bring foil dishes or containers to collect food (41% in schools with a high proportion, compared to 56% in schools with a low proportion of pupils entitled to free school meals).[43]

Similarly, those from schools in Scotland with a higher proportion of children who are entitled to free school meals were less likely to report that pupils were required to supply aprons (5% in schools with a high proportion, compared to 16% in schools with a medium proportion, and 28% in schools with a low proportion of pupils entitled to free school meals).[44]

Related to this, those from schools in Scotland with a higher proportion of children who from the 20% Most Deprived Areas were least likely to report that pupils were required to supply aprons (5% in schools with the highest proportion, compared to 4% in schools with a high proportion, 18% of those in schools with a low proportion and 28% in schools with the lowest proportion of pupils from the Most Deprived Areas).[45]

Variation According to School Profile (England)

In England, those from mixed-sex schools were more likely to report that pupils were asked to supply foil dishes, containers, or Tupperware (60%, compared to 42% from single-sex schools).[46]

In England, those from state-funded secondary schools were more likely to report that pupils were asked to supply foil dishes, containers, or Tupperware (62%, compared to 39% from independent schools).[47] There were no significant differences between Academy schools and those that were maintained by the local authority.

In England, those from larger schools were more likely to report that pupils were asked to supply foil dishes, containers, or Tupperware (41% of those from schools with less than 500 pupils, compared to 57% of those from schools with between 510 and 1000 pupils, and 63% of those with more than 1000 pupils).[48]

In England, those from schools in which a low proportion of pupils were entitled to free school meals were most likely to report that pupils were asked to supply foil dishes, containers or Tupperware (43% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 65% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 76% of those with less than one-tenth of pupils entitled to FSM).[49]

And for aprons

In England, and in contrast to Tupperware and containers, those from mixed-sex schools were less likely to report that pupils were asked to supply aprons (16%, compared to 36% from single-sex schools).[50]

In England, and as for Tupperware and containers, those from schools in which a low proportion of pupils were entitled to free school meals were most likely to report that pupils were asked to supply aprons (26% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 22% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 6% of those with less than one-tenth of pupils entitled to FSM).[51]

Variation by Gender

Women were more likely than men to report that pupils were required to bring foil dishes or containers to collect food (57%, compared to 38% of men).[52]

Issues and Implications

Pupils were required to contribute to the cost of food education in ways other than supplying ingredients or making a financial contribution, most notably by bringing foil dishes or containers to collect food.

In contrast to financial contributions and providing ingredients, pupils in Scotland were not exempt from these hidden costs of food education.

In both England and Scotland where there were more pupils in disadvantaged situations, it was less likely that pupils would be asked to provide equipment and accessories.

8. School Operations

We wanted to understand the systems in place to manage the administration of sourcing ingredients for food education.

We asked for:

- details of the school finance system for purchasing ingredients,
- who had responsibility for sourcing ingredients,
- how shopping for ingredients was managed,
- whether there was a budget for shopping for ingredients,
- whether the budget had changed in this school year,
- whether staff were ever required to use their own money to buy ingredients (which would later be reimbursed),
- whether they perceived there was sufficient technician support, and
- what they considered to be the implications if there was insufficient technician support.

Five teachers share two practical cookery rooms which is problematic in organising practical lessons. The Dept of Ed clearly do not see the importance of the subject and suitable facilities and provisions.

After very long time campaigning, we finally got a technology technician for 16 hrs last week. He did 2 days....amounted to 2 hrs in food then complained that while He was OK with DTand art jobs he didn't like cleaning out equipment and wasn't prepared to work in food. Head of faculty agreed to him working just art and dt...so we are totally stuffed. Cross is an understatement .

The lacking technical support has a big impact on recruiting and retaining teachers.

Class sizes too large to thoroughly and safely teach - 8 ovens, seats for 18 students but can have up to 31 within the class, then highly criticised for some recipe choices - these have been made to safeguard staff and students whilst maintaining a level of practical work, skills and experiences.

Everything is rush, rush, rush with ever increasing class sizes. When I was at school we had triple lessons with approx.. 15 students in there now they are expected to cook so much more with 50 minute lessons and 31 in a typical KS3 class - there needs to be legal limits!

Furious that we have non specialists teaching the subject who do not have the knowledge to pass onto students - its not just about leaving a clean and tidy kitchen!

Hugely underfunded. Food practicals conducted with one sink in a wood technology room!

I feel that I am always on the edge with it..... it is difficult to recruit, therefore I have recently worked with a perpetual series of very willing but non specialist teachers, which is draining and detracts from time on driving the subject forward. 50 minute lessons have had such an impact on quality of provision, mental well being. The rapid increase in supply of ingredients/current supply chains and prices is not sustainable and it means I am constantly fretting about planning/replanting/adapting etc.

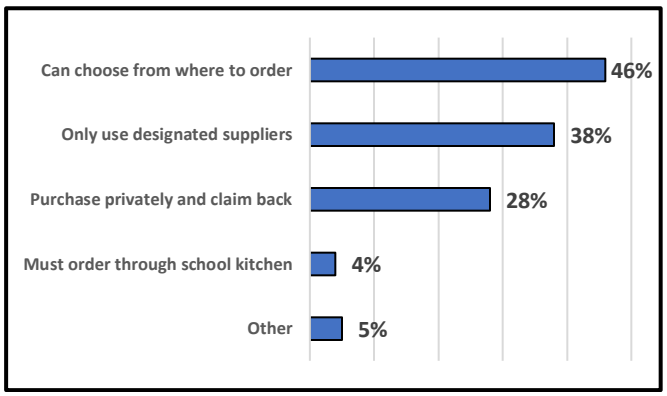
School System for Purchasing Ingredients

What we Asked

We asked, "what limitations, if any, does your school finance system place on your purchasing of ingredients". We offered four options, inviting respondents to select all that applied in their school. We also offered an 'Other' option inviting respondents to describe this alternative.

Headlines

No single system for purchasing ingredients was used across schools, with the most common approach enabling food education staff to choose where to order using the school finance system or school credit card (46%).



Cases: 921

We explored whether there were differences according to whether staff were asked to purchase privately and then claim back.

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), it was found that respondents from Wales were more likely to report that they had to purchase privately and then claim back (61% in Wales, compared to 35% in England, 23% in Northern Ireland and 11% in Scotland).[53]

Variation According to School Profile (England)

In England, those from single-sex schools were more likely to report that they purchased food privately and then claimed costs back (58%, compared to 32% from mixed-sex schools).[54]

In England, those from rural schools were more likely to report that they purchased food privately and then claimed costs back (48%, compared to 32% from those schools in small cities and towns, and 30% of those from large urban conurbations).[55]

In England, those from schools that are local authority maintained were most likely to report that they purchased food privately and then claimed costs back (49%, compared to 33% from independent schools and 30% from Academy schools).[56]

In England, those from schools in which a low proportion of pupils were entitled to free school meals were most likely to report that they purchased food privately and then claimed costs back (22% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 39% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 44% of those with less than one-tenth of pupils entitled to FSM).[57]

Variation According to Role

Management was more likely than staff to report that staff had to purchase privately and then claim back (34% for management, compared to 26% for staff). [58]

Variation According to Years in Profession

Those working in education the longest were most likely to report that staff had to purchase privately and then claim back (34% of those who has worked in the sector for more than 20 years, compared to 30% of those who had worked between 11 and 20 years, and 24% of those who had worked for less than 10 years).[59]

Variation According to Whether Entitled to Free School Meals as a Pupil

Those who were not entitled to claim free school meals when pupils were most likely to report that staff had to purchase privately and then claim back (30%, compared to 21% of those who were entitled to free school meals as pupils.[60]

Issues and Implications

Three-quarters of teachers reported being able to exercise discretion on where to purchase ingredients, although for one-quarter of teachers this required them to expend their own money before claiming back what they have spent on ingredients.

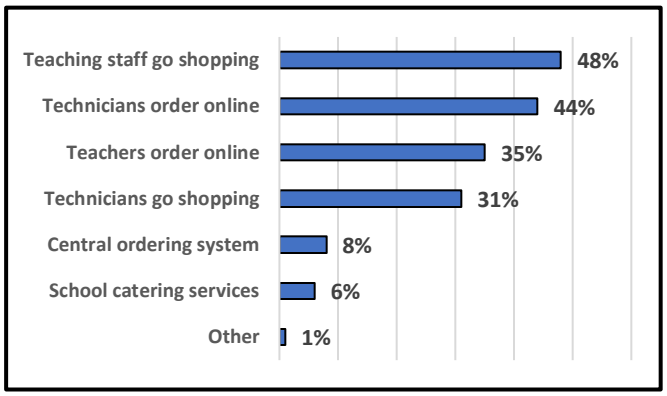
Responsibility for Sourcing Ingredients

What we Asked

We asked, "who is responsible for sourcing the ingredients that the school supplies for practical cookery classes", inviting respondents to select all that applied from a list of six options that was presented. Space was also provided to indicate 'Other' equipment and accessories that pupils were asked to supply.

Headlines

No single approach to sourcing ingredients was used across schools, with the most common approach being that teaching staff go shopping for ingredients (48%).



Cases: 978

We explored whether there were differences according to whether teaching staff had responsibility for shopping for ingredients.

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), it was found that respondents from Wales were more likely to report that teaching staff had responsibility for shopping for ingredients (77% in Wales, compared to 50% in Scotland, 49% in England and 31% in Northern Ireland).[61]

Variation According to School Profile (Scotland)

Those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to report that teachers were responsible for shopping to source ingredients (78% in schools with a high proportion, compared to 48% in schools with a medium proportion and 36% in schools with a low proportion of pupils entitled to free school meals).[62]

Consistent with this, those from schools in Scotland with a higher proportion of children from the 20% Most Deprived Areas were more likely to report that teachers were responsible for shopping to source ingredients (86% in schools with the highest proportion, compared to 57% in schools with a high proportion, 46% of those in schools with a low proportion and 42% in schools with the lowest proportion of pupils from the Most Deprived Areas).[63]

Those from non-denominational schools in Scotland were less likely than those from Roman Catholic schools to report that teachers were responsible for shopping to source ingredients (48% compared to 67%).[64]

Variation According to School Profile (England)

In England, those from rural schools were more likely to report that teachers were responsible for shopping to source ingredients (65%, compared to 44% from schools in small cities and towns, and 49% of those from large urban conurbations).[65]

In England, those from schools with a lower proportion of pupils from non-white British ethnic background were more likely to report that teachers were responsible for shopping to source ingredients (66% of those from schools with less than 5% of pupils from non-white British ethnic backgrounds, 59% for schools with under 10% of the same, and 46% of schools with at least one-in-ten pupils with a non-white British ethnic background).[66]

Issues and Implications

No approach to sourcing ingredients prevailed across the UK. Ingredients were sourced by teachers and technicians, through online and in-store shopping.

It would be interesting to explore why it was more commonplace for teachers in Scotland (but not England) to shop for ingredients in schools where there were more pupils in disadvantaged situations.

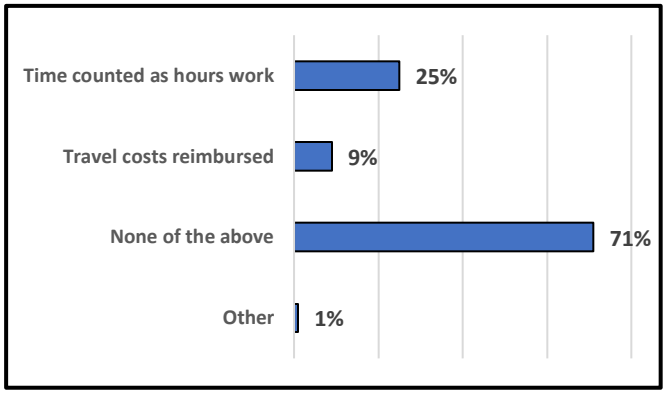
Management of Shopping for Ingredients

What we Asked

We asked, "which, if any, of the following apply to staff shopping for ingredients outside of school", inviting respondents to select which of the two options that were presented applied in their school. Respondents were also able to indicate that neither option applied or that staff do not go shopping for ingredients. Space was also provided to indicate 'Other' relevant practice in relation to shopping for ingredients.

Headlines

In most cases, staff reported that their work shopping for ingredients was not compensated: only one-quarter had time credited (25%) and only one-in-ten had travel costs reimbursed (9%).



Cases: 219

We explored whether there were differences according to whether time spent shopping was credited as working time.

Variation According to School Profile

There were insufficient returns from Scotland for this issue to explore whether there were variations according to school profile.

Variation According to School Profile (England)

Although not statistically significant, it is worthwhile to note that, In England, only one of the twenty-five responding from rural schools reported that time spent shopping was not counted as part of the working day, compared to more than one-fifth of those from urban areas.

Variation According to Role

Management was more likely than staff to report that staff had to purchase privately and then claim back (38% for management compared to 21% for staff). [67]

Issues and Implications

Most staff are subsidising the cost of sourcing ingredients for food education, as this work time is not acknowledged, and costs incurred are not reimbursed.

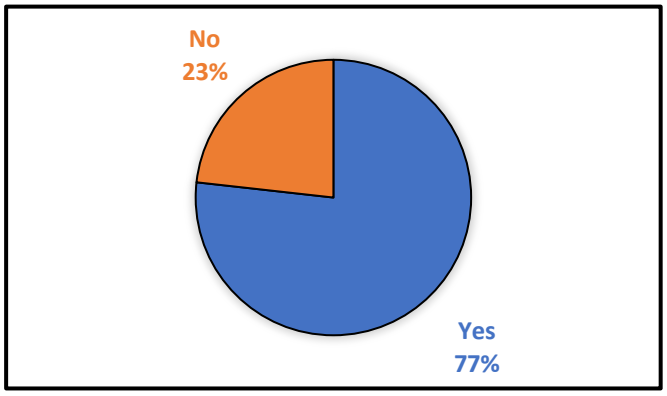
Budget for Purchasing Ingredients

What we Asked

We asked, “is there a budget for purchasing ingredients”, inviting respondents to indicate “yes” or “no”. We also presented a “do not know” option.

Headlines

Three-quarters reported that they had a budget for purchasing ingredients (77%).



Cases: 852

Variation Across the UK

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), it was found that respondents from Wales were more likely to report that they had a budget for purchasing ingredients (67% in Wales compared to 48% in Northern Ireland, 25% in England and 12% in Scotland).[68]

Variation According to Role

Management was more likely than staff to report that there was a budget for purchasing ingredients (28% for management compared to 21% for staff). [69]

Issues and Implications

Most staff are working with a budget to source ingredients for food education.

Changes to Budget for Ingredients in this School Year

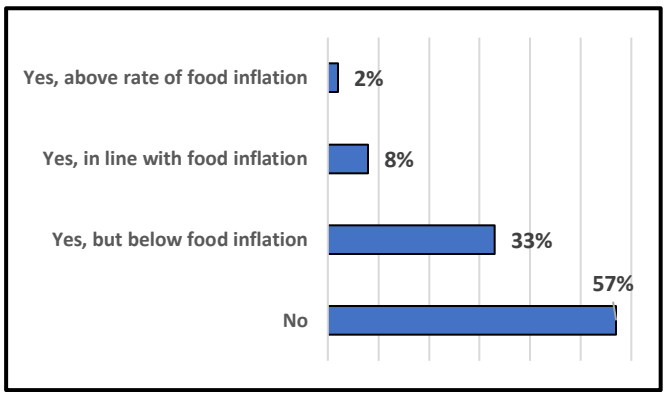
What we Asked

We asked a follow-on question to those who indicated that there was a budget for purchasing ingredients (480 respondents).

We asked, "has the budget for ingredients changed this school year", offering four response options. We also offered a 'do not know' option.

Headlines

Most respondents reported that the budget for ingredients had not changed in the school year (57%), with only one-in-ten reporting that the budget had increased at least in line with food inflation (10%).



Cases: 480.

We explored if there were differences according to whether the budget had increased (grouping together all those who reported a budget increase and comparing them to those who reported no increase).

Variation Across the UK

Those from Scotland were more likely to report an increase in the budget for ingredients this school year (58% compared to 38% from the rest of the UK).[70] On the other hand, this was comparable to state-funded secondary schools in England, as is explained below.

Variation According to School Profile (Scotland)

In Scotland, those from schools with low or medium attendance rates were more likely than those from schools with high attendance rates to report that the school budget for ingredients had increased this school year (65% compared to 44%).[71]

Variation According to School Profile (England)

In England, those from independent schools were more likely than those from state-funded secondary schools to report that the budget for ingredients had increased this school year (57% compared to 34%).[72] There was no difference between Academy schools and schools that were maintained by their local authority.

In England, those from schools in which a high proportion of pupils were entitled to free school meals were most likely to report that the budget for ingredients had increased this school year (51% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 28% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 20% of those with less than one-tenth of pupils entitled to FSM).[73]

In England, those from schools with a higher proportion of pupils whose first language was not English were more likely to report that the budget for ingredients had increased this school year (24% of those from schools with less than 5% of pupils whose first language was not English, 34% for schools with under 10% of the same, and 46% of schools with at least one-in-ten pupils whose first language is not English).[74]

Variation According to Role

Teachers were more likely than management to report an increase in the budget for ingredients this school year (45%, compared to 35% of management).[75]

Variation According to Whether Entitled to Free School Meals as a Pupil

Those who reported being entitled to a free school meal as a pupil were more likely to report an increase in the budget for ingredients this school year (53%, compared to 40% of those who did not receive a free school meal as a pupil).[76]

Issues and Implications

The spending power of most practitioners to source ingredients for food education had reduced in the current school year.

It would be interesting to explore the impact of the reduced spending power on sourcing ingredients on the quality of food education.

Used Own Money to Buy Ingredients That is Later Reimbursed

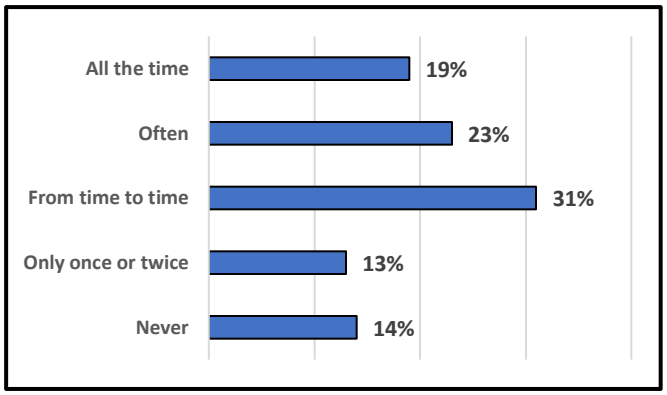
What we Asked

We asked, "in this school year, how often, if at all, have you used your own money to buy ingredients for cookery classes that has been reimbursed at a later date by the school?"

Five response options were provided, ranging from 'never', to 'all the time'. Respondents had the option of indicating that they would 'rather not say' (11 chose not to reply).

Headlines

Most respondents reported they had used their own money at some point to buy ingredients for cookery classes that was reimbursed by the school at a later date (86%). Although the most common experience was that this only happened 'from time to time' (31%), two-fifths reported that this occurred frequently (i.e., 42% reporting that this occurred either 'often' or 'all the time').



Cases: 967

We explored variation according to whether teachers had to use their own money to buy ingredients (that was later reimbursed).

Variation Across the UK

Teachers using their own money to buy ingredients was less common in Scotland, compared to the rest of the UK (24% stating 'never' in Scotland, compared to 10% in the rest of the UK).[77] Teachers buying ingredients with their own money was particularly prevalent in England, with rates in Wales and Northern Ireland closer to Scotland than England (notwithstanding the need for cautious interpretation of Welsh and Northern Irish data noted earlier).

Variation According to School Profile (Scotland)

In Scotland, those from schools with a high proportion of pupils from the 20% Most Deprived Areas were more likely to report that they were using their own money to buy ingredients "often" (41%, compared to 25% of those in areas with fewer pupils from the most deprived areas).[78]

Variation According to School Profile (England)

In England, those from independent schools were less likely than those from state-funded secondary schools to report that they had to use their own money to purchase ingredients (76% compared to 94% of those from state secondary schools).[79] There was no difference between Academy schools and schools that were maintained by their local authority.

Issues and Implications

It is commonplace across the UK for teachers of food education to shop for food ingredients, although this is marginally less prevalent in Scotland, and in independent schools in England.

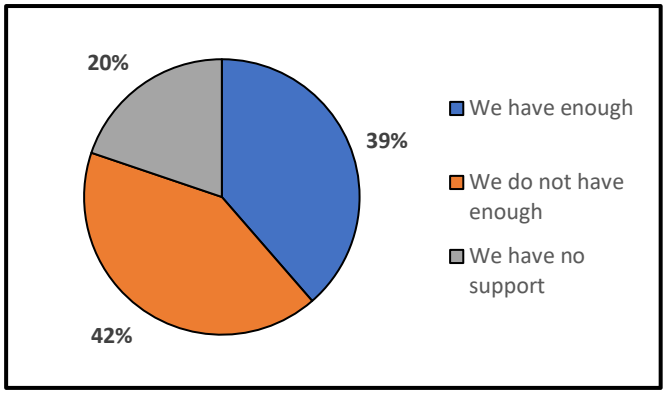
Status of Technician Support

What we Asked

We asked, "what is the current status of technician support in your school?', inviting respondents to choose from one of three options.

Headlines

Most reported nor having technician support (20% having none and 42% not having enough), although a minority reported that they had 'enough technician support' (39%).



Cases: 978

We explored variation between those who reported they had enough and those who did not (either had none, or stated they did not have enough).

Variation According to Role

Management was more likely than teachers to report that they had enough technician support (46%, compared to 34%), although even here most managers acknowledged that they did not have enough support.[80]

Variation According to School Profile (Scotland)

Although only 12 respondents were from a small school in Scotland (less than 500 pupils), it was notable that ten of the twelve respondents indicated that they had no or not enough technician support (83%): this compared to two-thirds of those from medium-sized and larger schools (over 1000 pupils).

There was a striking difference between those responding from schools with a high proportion of pupils entitled to free school meals (FSM) and those from schools with lower FSM-entitled pupils in Scotland. Less than one-tenth of those from schools with a high proportion reported that they had enough support, which was far fewer than in other schools (7% in schools with a high rate, compared to 40% in schools with a medium rate, and 44% in schools with a low rate).[81]

Respondents from schools with a higher proportion of pupils from Scotland's 20% Most Deprived Areas were least likely to report enough technician support (9% where more than 50% of pupils are from the Most Deprived Areas, compared to 15% in schools with between 25% and (under) 50% of pupils the 20% Most Deprived Area (SIMD20), 46% in schools with between 5% and (under) 25% of pupils in SIMD20, and 50% in schools with less than 5% of pupils in SIMD20).[82]

Also consistent with this patterning was the finding that those from schools in Scotland with high attendance rates were more likely to report enough technician support (43%, compared to 29% in schools with low or medium attendance rates).[83]

Those from non-denominational schools in Scotland were more likely than those from Roman Catholic schools to report enough technician support (40%, compared to 15%).[84]

Variation According to School Profile (England)

In England, those from smaller schools were less likely to report that they had enough technician support (13% of those from schools with less than 500 pupils, compared to 41% of those from schools with between 510 and 1000 pupils, and 46% of those with more than 1000 pupils).[85]

Issues and Implications

Most schools report a shortage of technician support.

The significance of the inverse correlation between need and technician support (schools with higher levels of need were reported to have less technician support) in schools in Scotland should be investigated. There may be wider lessons throughout the UK where managing ingredient provision in class may be a particular problem for schools with insufficient technician support.

It was also notable that there was less technician support in smaller schools in both England and Scotland.

Implications of Insufficient Technician Support

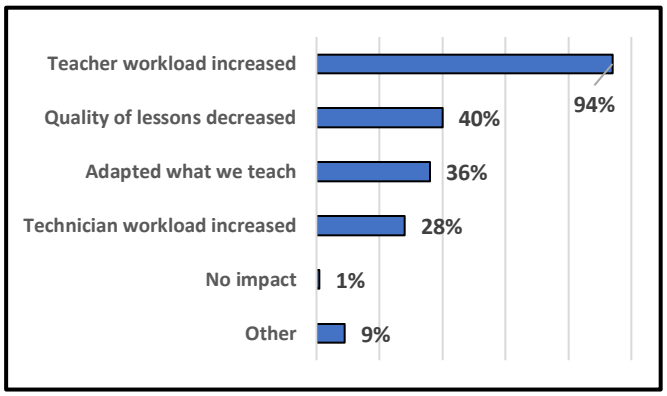
What we Asked

We asked one follow-on question to those who indicated that they had technician support (either have enough or 'do not have enough' – 589 respondents).

We asked, "what, if any, are the impacts of not having enough technician support in your school". We offered five options, one of which was 'no impact', inviting respondents to select all that applied. We also offered an 'Other' option, inviting respondents to explain the impact.

Headlines

Insufficient technician support was reported to have had an impact on workloads and the nature of what was taught in food education.



Cases: 589

We explored whether there were differences according to the nature of what was taught.

Variation Across the UK

Those in Scotland were more likely than those from other parts of the UK to report that the quality of lessons had decreased because of the lack of technician support (51%, compared to 37% of those from the rest of the UK).[86]

Variation According to School Profile (Scotland)

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from schools in Scotland with the highest rates of attendance were least likely to report that their school had to adapt what was offered due to a lack of technician support (34% in schools with the highest attendance rates, compared to 51% in schools with a medium/low attendance rate.[87]

In Scotland, those from smaller or medium sized schools were more likely to report that the quality of lessons had decreased because of the lack of technician support (67%, compared to 41% of those from larger schools).[88]

Those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to report that the quality of lessons had decreased because of the lack of technician support (73% in schools with a high proportion, compared to 50% in schools with a medium proportion and 35% in schools with a low proportion of pupils entitled to free school meals).[89]

Consistent with this, those from schools in Scotland with a higher proportion of children who from the 20% Most Deprived Areas were more likely to report that more children are now appearing hungry in class (70% in schools with the highest proportion, compared to 67% in schools with a high proportion, 40% of those in schools with a low proportion and 36% in schools with the lowest proportion of pupils from the Most Deprived Areas).[90]

Variation According to School Profile (England)

In England, those from non-denominational schools were more likely than those from denominational schools to report that they had to adapt their teaching due to not having enough technician support (38% compared to 17%).[91]

Variation According to Years in Profession

Those working in education the longest were least likely to report that the quality of lessons had decreased because of the lack of technician support (27% of those who has worked in the sector for more than 20 years, compared to 49% of those who had worked between 11 and 20 years, and 46% of those who had worked for less than 10 years).[92]

Issues and Implications

The lack of technician support was reported to have an adverse impact on food education. Almost all acknowledged that this increased teachers' workload, with a significant minority also noting that lessons had to be adapted, the quality of lessons decreased, and the workload for other technicians increased.

These impacts were reported more keenly in Scotland than elsewhere in the UK. Also in Scotland, the impacts were felt more keenly in smaller schools and schools that served more disadvanatged populations. These patterns reinforce the inverse correlations with need that were reported for levels of technician support.

It is also notable that it is teachers with less experience who are most likely to lament the lack of technician support.

9. Access to Food Education

The core purpose of the research was to explore barriers to practical food education across the UK.

We canvassed details on:

- *what food education qualifications were offered to pupils across schools,*
- *perceptions of whether pupils who were entitled to free school meals were likely to select food education subjects,*
- *how exemptions to providing ingredients or making financial contributions are administered,*
- *whether teachers are aware of those pupils who are exempt from contributing,*
- *what information is provided to parents and pupils,*
- *perceptions of whether cost is a barrier to access to food education, and*
- *attitudes toward whether pupils should be asked to contribute to the cost of food education.*

Please bring back a proper A level for this subject to inspire a new generation of enthusiastic food students who currently have little/no progression .

Need to bring back A level. Will not be taken seriously until then.

A lack of A level is mentioned repeatedly by parents and pupils. So many would continue with food education if A level food prep and nutrition was reintroduced.

We work in a fabulous department of 3 full time food teachers and have a wonderful student from Reading University training to be a food teacher(we also did this last year). We work hard to engage and motivate our students but the pressure of NEA1 (and waste of food) and absence of an A level in Food must be priorities for action. Please!!!! We are aware of the original reasoning for NEA1 but times have changed, the post Covid situation has altered our view significantly - having this element cut as a Covid adjustment showed us how much better GCSE Food can be for our students and teachers alike.

Burden of assessment for N5 Practical Cookery makes too high a demand on time & resources and provision of practical lessons for BGE has reduced as a result.

class sizes are too big in relation to the amount of cookers and space available. Not enough emphasis given on the amount of science and theory in the subject - seen as an easy option by head of year so LA pupils encouraged to take it only to struggle horrifically with the amount of work. Having to teach extra lessons of Food education for all of year 9, which means I have to teach GCSE pupils more repetitive lessons and teaching pupils that have not opted to take the GCSE so they are disruptive and demand to cook every lesson.

Home Economics is viewed as a "dumping" ground for pupils who can't take other subjects, just we are expected to get them Nat 5s. The exams are Practical Cookery are mental, it is becoming an English course rather than a practical subject.

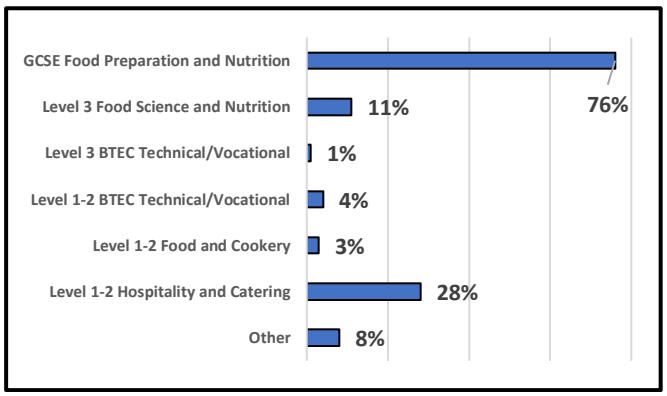
Qualifications Offered: England

What we Asked

For respondents who indicated that they worked in England, we asked, "which of the following qualifications are offered in your school", inviting them to select all that applied from a list of six options that reflected what was currently available to pupils in England. Space was also provided to indicate 'Other' qualifications that were not among the ten listed.

Headlines

Most respondents from England reported that their school offered GCSE Food Preparation and Nutrition (76%), although a minority of schools were reported to offer other qualifications.



Cases: 557

We explored whether there were differences according to whether the GCSE was reported.

Variation According to School Profile (England)

Although very few surveys were returned from those working in boys-only schools and that the conditions of statistical significance were not achieved, in England, it is worthwhile noting that the availability of the GCSE in Food Preparation and Nutrition was more widespread in girls-only schools (93%), compared to mixed-sex schools (75%) and boys-only schools (five of the eight).

In England, those from non-selective schools were more likely than those from schools that were not to report that GCSE Food Preparation and Nutrition was offered (80% compared to 56%).[93]

In England, those from the smallest schools were least likely to report that GCSE Food Preparation and Nutrition was offered (40% in schools with less than 500 pupils, compared to 79% of schools with between 501 and 1000 pupils, and 81% of those in schools with more than 1000 pupils).[94]

In England, those from schools in which a high proportion of pupils were entitled to free school meals were least likely to report that that GCSE Food Preparation and Nutrition was offered (55% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 81% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 95% of those with less than one-tenth of pupils entitled to FSM).[95]

Issues and Implications

Respondents from England described a limited number of food education qualifications in their schools, with the GCSE in Food Preparation and Nutrition being most commonly available.

Significantly, those from smaller schools and schools with more disadvantaged pupils, reported less access to the GCSE. Higher access was reported in girls-only schools.

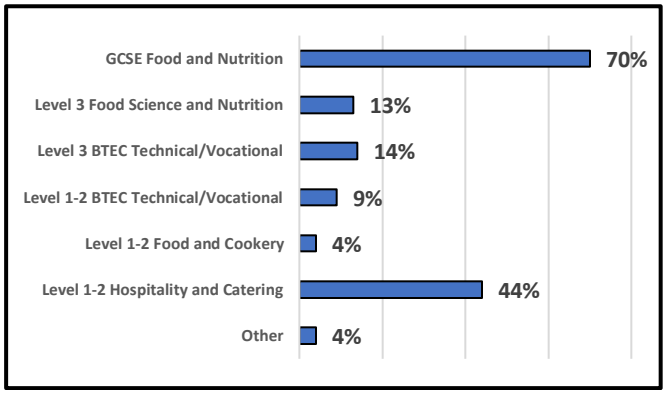
Qualifications Offered: Wales

What we Asked

For respondents who indicated that they worked in Wales, we asked, “which of the following qualifications are offered in your school”, inviting them to select all that applied from a list of six options that reflected what was currently available to pupils in Wales. Space was also provided to indicate ‘Other’ qualifications that were not among the ten listed.

Headlines

Acknowledging the need for cautious interpretation of Welsh data noted earlier), the qualifications reported to be available to respondents from schools in Wales is reported below.



Cases: 23

No variations were explored for these data.

Issues and Implications

The availability of qualifications in Wales was like that reported for schools in England, although more reported options for pre-GCSE level qualifications.

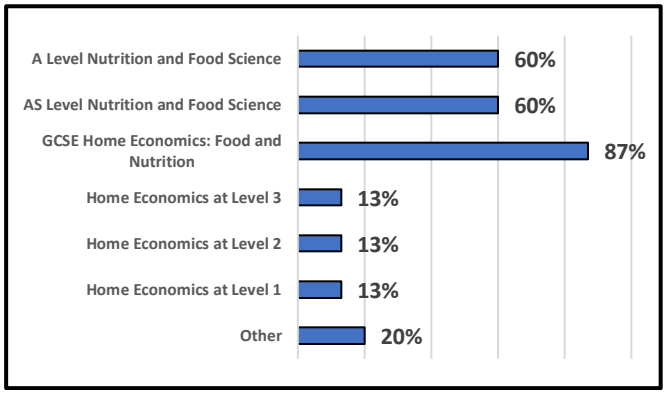
Qualifications Offered: Northern Ireland

What we Asked

For respondents who indicated that they worked in Northern Ireland, we asked, “which of the following qualifications are offered in your school”, inviting them to select all that applied from a list of six options that reflected what was currently available to pupils in Northern Ireland. Space was also provided to indicate ‘Other’ qualifications that were not among the ten listed.

Headlines

Acknowledging the need for cautious interpretation of Northern Irish data noted earlier), the qualifications reported to be available to respondents from schools in Northern Ireland is reported below.



Cases: 30

No variations were explored for these data.

Issues and Implications

Most respondents from Northern Ireland reported that their schools offered pupils the opportunity to take advanced level qualifications in Nutrition and Food Science.

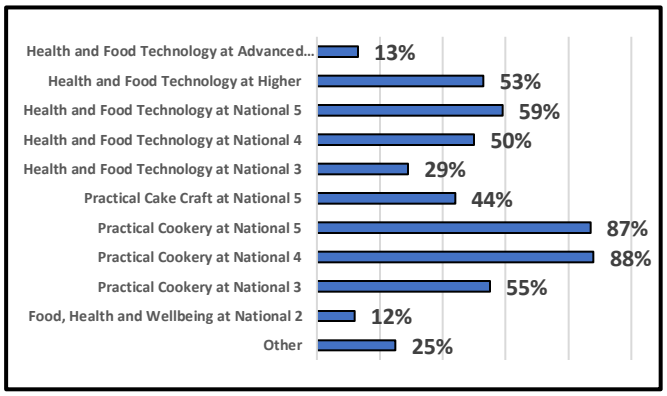
Qualifications Offered: Scotland

What we Asked

For respondents who indicated that they worked in Scotland, we asked, "which of the following qualifications are offered in your school", inviting them to select all that applied from a list of ten options that reflected what was currently available to pupils in Scotland. Space was also provided to indicate 'Other' qualifications that were not among the ten listed.

Headlines

A wide range of qualifications were reported to be offered across schools in Scotland.



Cases: 234

We explored whether there were differences according to the availability to present for advanced qualifications (Health and Food Technology at Higher) and elementary level (Practical Cookery at National 3).

Variation in the Presentation of Practical Cookery at National 3

In Scotland, those from schools with more S5/S6 pupils in the school roll were less likely to report offering Practical Cookery at National 3 (39% in schools with a high proportion, compared to 63% in schools with a medium proportion and 61% in schools with a low proportion of S5/S6 pupils).[96]

Those from schools in Scotland with a lower proportion of children with Additional Special Needs were less likely to report offering Practical Cookery at National 3 (44% in schools with a low proportion, compared to 60% in schools with a medium proportion and 67% in schools with a high proportion of ASN pupils).[97]

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to report offering Practical Cookery at National 3 (68% in schools with a high proportion, compared to 60% in schools with a medium proportion and 44% in schools with a low proportion of pupils entitled to free school meals).[98]

Those from schools in Scotland with a higher proportion of children who from the 20% Most Deprived Areas were more likely to report offering Practical Cookery at National 3 (68% in schools with the highest proportion, compared to 50% in schools with a low proportion.[99]

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from schools in Scotland with the highest rates of attendance were least likely to report offering Practical Cookery at National 3 (49% in schools with the highest attendance rates, compared to 60% in schools with a medium attendance rate and 71% in schools with a low attendance rate).[100]

Variation in the Presentation of Health and Food Technology at Higher

Those who were not entitled to claim free school meals when pupils were most likely to report the availability of Higher Health and Food Technology in their school (56%, compared to 34% of those who were entitled to free school meals as pupils). [101]

Most markedly, eleven of the twelve respondents from small schools in Scotland (92%) did not offer the Higher Health and Food Technology, compared to more than one-half from medium-sized schools (58%) and large schools (53%).[102]

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from schools in Scotland with more S5/S6 pupils in the school roll were least likely to report offering Higher Health and Food Technology (39% in schools with a high proportion, compared to 53% in schools with a medium proportion and 65% in schools with a low proportion of S5/S6 pupils).[103]

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from schools in Scotland with the highest rates of attendance were least likely to offering Higher Health and Food Technology (47% in schools with the highest attendance rates, compared to 52% in schools with a medium attendance rate and 79% of schools with a low attendance rate.[104]

Issues and Implications

Options to pursue food education are widely available at many levels and many forms in Scotland. There is some evidence to suggest that lower-level qualifications are more accessible to schools in which a higher proportion of pupils are from more disadvantaged backgrounds. Consistent with this – although in other respects counter-intuitive – access to Higher-level qualifications (equivalent to AS Level) is less commonplace in schools with higher proportions of S5/S6 pupils among the school population and in schools with high levels of attendance. Also significant was that access to Higher was less widespread in smaller schools.

Likelihood of Free School Meals Entitled Pupils Taking Food Education

What we Asked

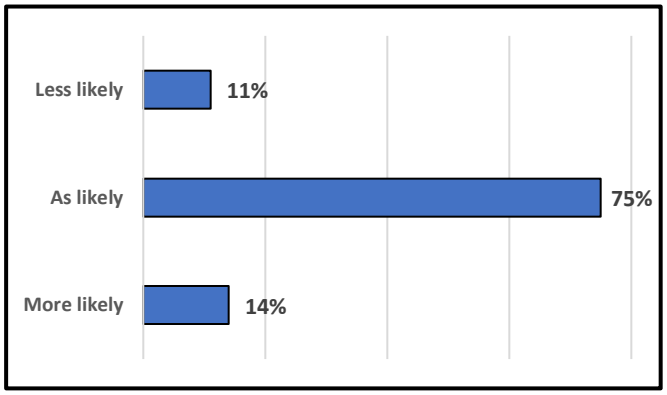
We asked, “are pupils who are entitled to free school meals more, equally or less likely than pupils who are not entitled to a free school meal to choose to do an exam in a food education subject?”

We offered the option of indicating that “I do know which pupils are entitled to free school meals” (131 respondents) and “I know who is entitled to free school meals, but do not know if they are more or less likely to choose a food education subject (231 respondents). We also offered a “rather not say” option (28 respondents).

551 respondents expressed the opinion that pupils were either ‘more likely’, ‘as likely as’ or ‘less likely’ to choose a food education subject.

Headlines

Most of those who expressed an opinion considered that pupils who are entitled to free school meals are ‘just as likely’ as pupils who are not to choose to take an exam in a food education subject (75%).



Cases: 551

Variation Across the UK

Although a clear majority across the UK considered that pupils entitled to free school meals were ‘just as likely’ as others to select food education, more than twice as many from Scotland believed that they were more likely to choose food education, compared to the rest of the UK (28%, compared to 11%).[105]

A higher proportion of respondents from England considered that pupils entitled to free school meals were less likely to choose Food education as an exam subject (15%).

Variation According to Years in Profession

There was interesting variation in opinion according to years in the profession. The proportion of respondents who were both more likely to suggest that FSM pupils were more likely to choose and less likely to choose was higher among those with fewer years in the profession.[106]

One-fifth of those with less than ten years in the profession considered that FSM pupils were more likely (20%, compared to 13% of those in the profession between 11-20 years, and 8% of those in the profession for more than twenty years).

Yet, one-in-seven of those with less than ten years in the profession also considered that FSM pupils were less likely (14%, compared to 11% of those in the profession between 11-20 years, and 10% of those in the profession for more than twenty years).

Issues and Implications

Although family financial circumstance (as evidenced by free school meal entitlement) is not generally considered to be a barrier to accessing food education, it was notable that more respondents from England (compared to Scotland, where food education is delivered without direct cost to parents) perceived that it was a barrier to access.

How Exemptions are Administered

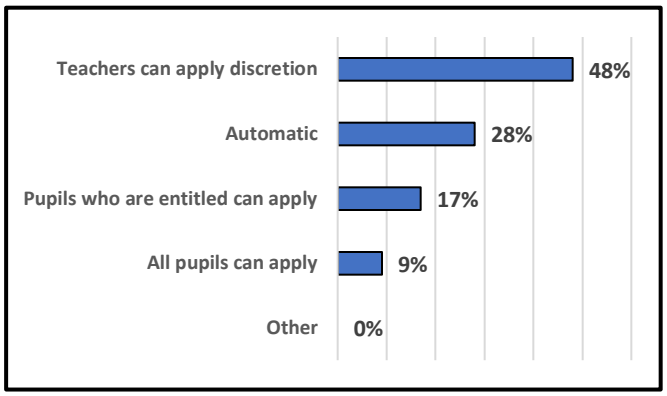
What we Asked

We asked, "how are exemptions from pupil contributions (providing ingredients, providing equipment or making a financial contribution) administered", inviting respondents to select all that applied from a list of six options, one of which was 'all pupils are exempt' (for schools which did not require any contribution).

We also offered an 'Other' option, inviting them to describe this alternative.

Headlines

One-half of those responding either indicated that no exemptions were necessary (42%, as all pupils are exempt) or that no exemptions were granted (7%). Thus, one-half of those responding indicated that examptions could be applied.



Cases: 556

We explored whether there were differences according to whether teachers could apply discretion – there were no significant differences.

Variation According to School Profile (England)

In England, those from mixed-sex schools were more likely than those from single-sex schools to report that teachers could apply discretion in class over exemptions (38%, compared to 17% in mixed-sex schools).[107]

In England, those from state-funded secondary schools were more likely than those in independent schools to report that teachers could apply discretion in class over exemptions (39%, compared to 7% in independent schools).[108] There was no differences between Academy schools and schools managed by their local authority.

Issues and Implications

Although there is merit in teachers having flexibility to apply discretion on exemptions, there is also merit in entitlement being automated (for reduced workload and avoided undignified access): only one-quarter reported that exemptions were automatic.

Teachers Awareness of Exemptions

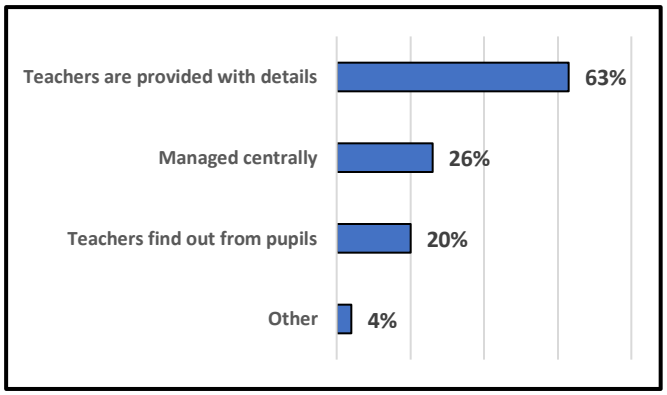
What we Asked

We asked one follow-on question to those who indicated that exemptions from contributing were available (all except those who indicated 'all pupils must contribute' and 'no pupil are asked to make a contribution' – 433 respondents).

We asked, "how do teachers know which pupils are exempt from contributing". We offered three options, inviting respondents to select all that applied. We also offered an 'Other' option, inviting respondents to explain how they found out.

Headlines

One-third of those responding either indicated that no exemptions were necessary (32%, as all pupils are exempt) or that no exemptions were granted (3%). Thus, two-thirds of those responding provided information on how staff became aware of exemptions.



Cases: 433

We explored whether there were differences according to whether teachers found out from pupils.

Variation According to School Profile (England)

Although not a statistically significant difference and although there were a small number of cases for independent schools, it is worthwhile to note that, in England, no-one from independent schools reported that they found out from pupils, compared to 15% of those from state-funded secondary schools. There were no differences between Academy schools and those under the control of the local authority.

Issues and Implications

Teachers are charged with the responsibility of managing exemptions to contribute. In only one-quarter of cases, was it reported that exemptions are managed centrally.

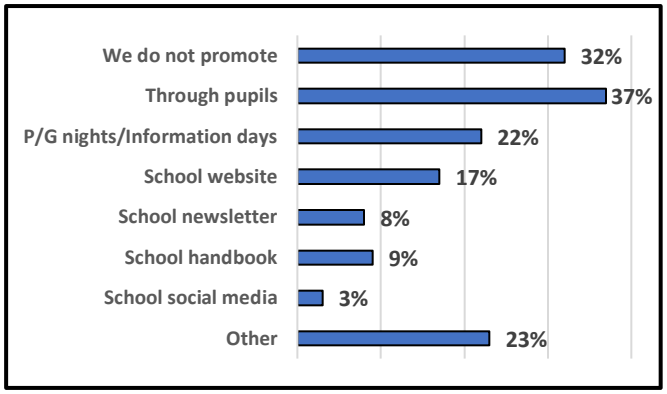
Communicating with Parents and Pupils

What we Asked

We asked, “how is information about exemptions from contributing (providing ingredients, providing equipment, or making a financial contribution) communicated to parents and pupils”. We offered seven options, inviting respondents to select all that applied. We also offered an ‘Other’ option, inviting respondents to explain how they communicated to parents and pupils.

Headlines

In one-third of the cases where exemptions were available, these were not actively promoted to parents/guardians (32%). Raising awareness through pupils was reported as the most common approach to raising awareness of exemptions (37%).



Cases: 402

We explored whether there were differences according to whether exemptions were not promoted – no significant differences were found.

Issues and Implications

There would appear to be a lack of concerted effort to raise awareness of exemptions to making a contribution to food education, with one-third of teachers reporting that exemptions are not promoted to parents/guardians or pupils.

Perceptions of Cost as a Barrier

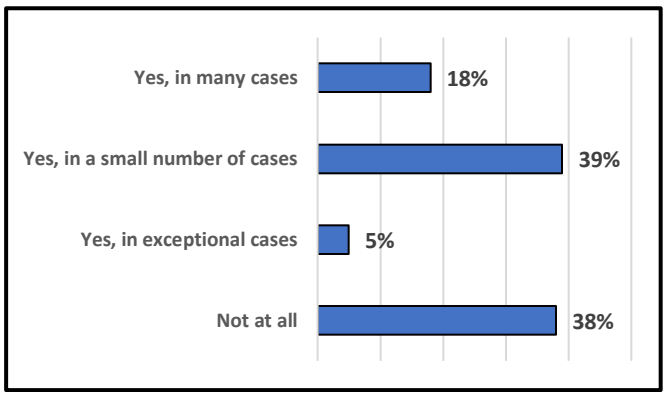
What we Asked

We asked, "drawing on your experience, to what extent do you think that cost is a barrier to pupils choosing a Food Education subject?"

Four response options were offered, in addition to 'do not know' (122 respondents) and 'rather not say' (9 respondents).

Headlines

Of those who were able to express an opinion, two-thirds perceived that cost was a barrier (62%), with most of these perceiving it was a barrier in a small number of cases (39%).



Cases: 820

We explored differences according to whether cost was considered a barrier (grouping together all the 'yes' responses).

Variation Across the UK

There was a significant difference in the perception of whether cost was a barrier between Scotland and the rest of the UK: more than thrice as many in the rest of the UK perceived cost to be a barrier (23% in Scotland, compared to 78% in the rest of the UK).[109]

Variation According to School Profile (Scotland)

In Scotland, those from small and medium sized schools were more likely than those from larger schools to report that cost was a barrier to participation for "many pupils" (14%, compared to 5% in larger schools).[110]

Although not achieving the threshold for 'statistical significance', it may be useful to note that twice as many of those responding from schools with a high number of pupils with ASNs opined that cost was a barrier to participation for some pupils (34% in schools with a high proportion, compared to 18% in schools with a low proportion). The same patterning was evident (but also without statistical significance thresholds being met) for those in schools with more pupils with English as a second language (35% noting this was a barrier, compared to 22% of those from schools with a low proportion of pupils with English as a second language).

In schools in Scotland with low or medium attendance rates, more respondents reported that cost was a barrier to participation for "many" pupils (14%, compared to 4% in schools with high attendance rates).[111]

Variation According to School Profile (England)

In England, those from state-funded secondary schools were more likely than those in independent schools to perceive that cost was a barrier to participation (81%, compared to 62% in independent schools).[112] Those from Academy schools were marginally less likely to perceive cost as a barrier to participation, compared to those from schools managed by their local authority (78%, compared to 85%).

In England, those from rural schools were more likely to perceive that that cost was a barrier to participation (87%, compared to 80% in small cities and towns, and 69% in the large conurbations).[113]

In England, those from schools in which a high proportion of pupils were entitled to free school meals were least likely to report that that cost was a barrier to participation (63% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 85% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 89% of those with less than one-tenth of pupils entitled to FSM).[114]

In England, those from schools with a higher proportion of pupils whose first language was not English were less likely to report that cost was a barrier to participation (83% of those from schools with less than 5% of pupils whose first language was not English, 88% for schools with under 10% of the same, and 69% of schools with at least one-in-ten pupils whose first language is not English).[115]

Variation According to Role

Those who were in a management position were more likely than teachers to perceive cost as a barrier (74% of managers, compared to 57% of teachers).[116]

Issues and Implications

The majority consider that cost is a barrier to participation (at least in a small number of cases, or in exceptional cases).

Notably, in Scotland where there is no charge for ingredients and no cost levied to families, fewer teachers consider cost to be a barrier. However, even here, one-quarter of teachers perceive it to be a barrier, with a perception in smaller schools and schools with poorer attendance that many pupils' experience cost as a barrier.

In England, the highest proportions perceiving cost to be a barrier was found in schools with the least amount of pupils from disadvantaged backgrounds. The extent to which this reflected positive actions being taken to facilitate participation in these schools should be considered.

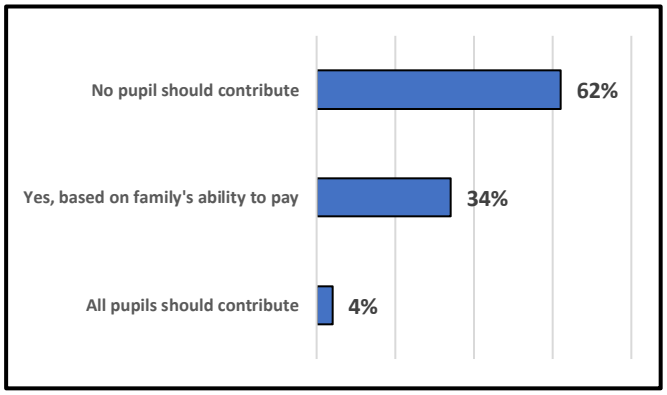
Should Pupils be Asked to Contribute to the Costs of Food Education?

What we Asked

We asked, "in your opinion should pupils be asked to contribute to the costs of Food Education", offering three response options. We also offered a "do not know' (55 respondents) and 'rather not say (13 respondents) option.

Headlines

Almost two-thirds of respondents who expressed an opinion (62%) believed that no pupil should make a financial contribution towards the costs of food education.



Cases: 803

We explored variation between those who thought that some/all pupils should contribute and those who thought no pupils should contribute.

Variation Across the UK

There were significant differences between respondents from Scotland and the rest of the UK. Belief that no pupils should contribute was stronger in Scotland (81%, compared to 55% in the rest of the UK).[117]

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), a far higher proportion (and clear majority) of respondents from Northern Ireland reported that some pupils should make a financial contribution.

Variation According to School Profile (Scotland)

Although not achieving the threshold for 'statistical significance', it may be useful to note that those responding from schools in Scotland with a medium or high proportion of pupils with English as a second language were more likely to consider that some pupils should contribute to the cost of food education (26%, compared to 14% of those from schools with a low proportion of pupils with English as a second language).[118]

Variation According to School Profile (England)

In England, those from schools in which a high proportion of pupils were entitled to free school meals were least likely to perceive that pupils should contribute to the cost of school meals (31% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 50% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 54% of those with less than one-tenth of pupils entitled to FSM).[119]

Issues and Implications

There is strong support for food education to be freely accessible to pupils. However, the strength of this commitment varies across the UK. With approaching one-half of practitioners outside of Scotland believing that at least some pupils should contribute to costs, there is a need to engage food education teachers with wider 'Cost of the School Day' evidence, which demonstrates that many families do not have access to what is needed to contribute to the everyday costs of their child's food education. It must also be acknowledged that the basis of these judgements may be based on what *is actually* required to deliver lessons (considering inadequate funding), rather than what *ideally should be* required.

10. Changes in this School Year

We wanted to explore changes in the current school year. A series of multiple response questions were asked to collect information on whether changes were experienced about:

- classrooms,
- staff, pupils,
- pupils and the supply of ingredients,
- pupils and the payment of financial contributions, and
- broader aspects of food education.

Increasingly challenging as pupils' basic skill level at the start of high school, seems to decrease year on year.

Some pupils do not have the dexterity to carry out simple tasks as they perhaps don't cook at home or carry out other task which would help improve their food skills.

Poverty is a barrier to every aspect of wellbeing. Being a food teacher in XXX is like fighting an inferno with a damp sponge.

It has become increasingly difficult to well or safely due to the increase in class sizes over recent years. It is no longer enjoyable as the pressure to get food cooked and room cleaned in one hour with 29+ children is immense. So sad to see them flustered instead of enjoying learning to cook.

It is becoming increasingly difficult if not impossible to get equipment repaired or serviced, the food budget is inadequate and is often supplemented by staff without reimbursement - again this is becoming more difficult as strain on personal budget increases.

As budgets have tightened over the past few years, there has been less funding so lots of good practice and courses dropped as well as extra-curricular clubs. A very sympathetic management team have been replaced by a new team with less understanding and a reluctance to engage in any discourse. Cutting period times to 45 mins has also had a significant impact on how thoroughly we can teach and what we can choose to do. In the past, we always had a lot of senior students return to the department but curricular changes and options structures means this now rarely occurs

Home Economics is a popular subject in our school and pupils at BGE level thoroughly enjoy the practical aspect. The teachers are stretched with the day to day running of the dept and as such extra-curricular activities such as cook club, Young chef competitions, etc have disappeared.

Changes in the Classroom

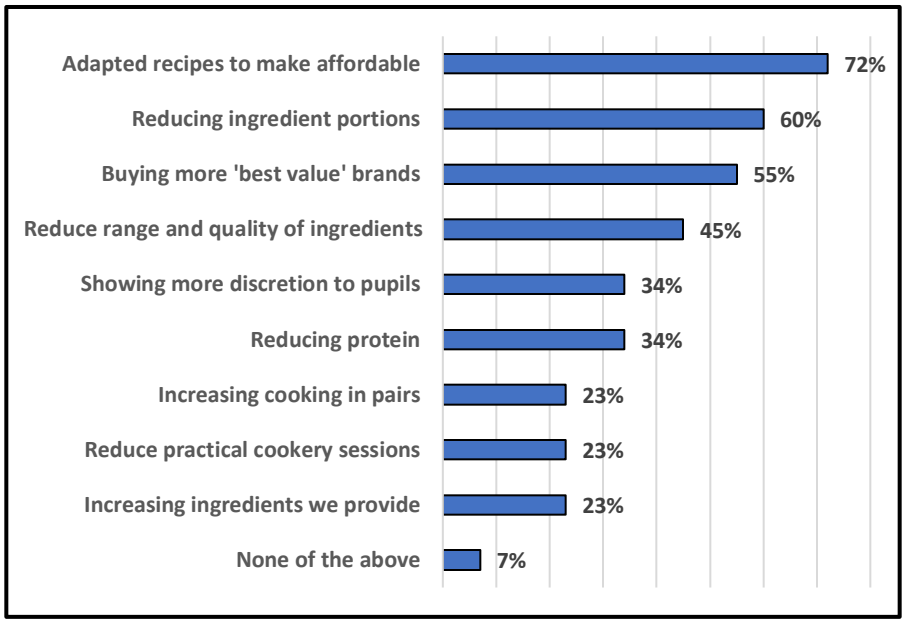
What we Asked

We asked a series of six multiple-response questions to explore change in the current school year, the first of which concerned ingredients and classroom practice. We canvassed opinion on ten issues, inviting respondents to indicate all that applied to them in the current school year.

Headlines

Many changes to classroom practice in food education were reported for the current school year, with almost three-quarters reporting that they had adapted recipes tomake them more affordable (72%).

We explored whether there were differences among those who reported that they were reducing the range and quality of ingredients used and whether they had increased the amount of cooking in pairs.



Cases: 898

Variation Across the UK

More respondents from Scotland reported that they had reduced the range and quality of ingredients being used (60% in Scotland, compared to 40% in the rest of the UK)[120]

Variation According to School Profile (Scotland)

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from non-denominational schools in Scotland were more likely than those from Roman Catholic schools to report that they had reduced the range and quality of ingredients being used (65%, compared to 50%).[121]

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to report that the amount of cooking in pairs had increased this school year (35% in schools with a high proportion, compared to 22% in schools with a medium/low proportion entitled to free school meals).[122]

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from schools in Scotland with higher rates of attendance were least likely to report that the amount of cooking in pairs had increased this school year (15% in schools with high attendance rates, compared to 29% in schools with a medium/low attendance rate).[123]

Variation According to School Profile (England)

In England, those from schools that were managed by the local authority were more likely than those from Academy schools and those from independent schools to report that the range and quality of ingredients used in class had reduced this year (53%, 38% and 33%, respectively).[124]

In England, those from denominational schools were more likely than those from non-denominational schools to report that more cooking was undertaken in pairs this year (33% and 20%, respectively).[125] Among denominational schools, more cooking in pairs was more prevalent in Roman Catholic than Church of England schools (41%, compared to 29%, respectively)

In England, those from schools in which a high proportion of pupils were entitled to free school meals were more likely to report that more cooking was undertaken in pairs this year (32% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 20% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 3% of those with less than one-tenth of pupils entitled to FSM).[126]

Variation by Role

Management was more likely than staff to report that the amount of cooking in pairs had increased this school year (27% for management, compared to 20% for staff). [127]

Variation According to Years in Profession

Those working in education the longest were least likely to report that they had reduced the range and quality of ingredients being used (40% of those who has worked in the sector for more than 20 years, compared to 44% of those who had worked between 11 and 20 years, and 51% of those who had worked for less than 10 years). [128]

Variation by Gender

Men were more likely than women to report that they had reduced the range and quality of ingredients being used (67%, compared to 44% of women).[129]

Issues and Implications

It is significant that most teachers have adapted their teaching practice to account for the cost-of-living pressures that are being experienced.

Although adaptations to circumstance are to be welcomed and are indicative of a profession that is sensitive to prevailing conditions, less welcome are when these changes reduce the quality of the learning experience. Adaptations are less welcome if they are deemed to be forced considering inadequate resources. Similarly, the higher incidence of cooking in pairs in schools with most disadvantaged pupils is a concern if this implies that educational disadvantage is being reinforced.

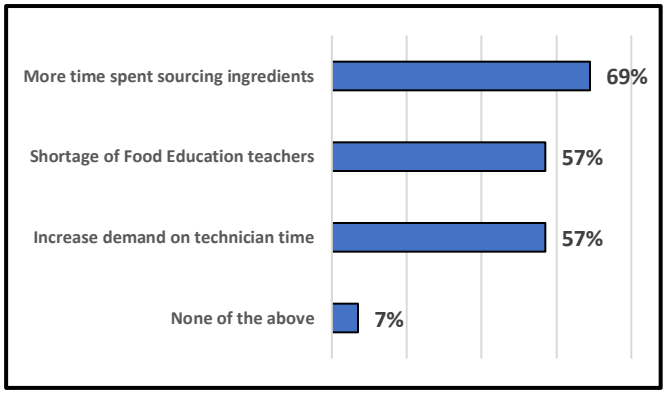
Changes Related to Staff

What we Asked

The second multiple-response question to explore change in the current school year, concerned staffing. We canvassed opinion on three issues, inviting respondents to indicate all that applied to them in the current school year.

Headlines

Most reported changes to staffing in the current school year.



Cases: 893

We explored whether there were differences according to whether it was perceived that there was a shortage of food education teachers.

Variation Across the UK

Those responding from Scotland were more likely than those from England to report that there was a shortage of food education teachers (66%, compared to 53% in England).[130]

Variation According to School Profile (Scotland)

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from larger schools in Scotland were more likely to report that there was a shortage of food education teachers (73%, compared to 60% in schools with a medium/low number of pupils).[131]

Those from schools in Scotland with a higher proportion of pupils with English as a second language were more likely to report that there was a shortage of food education teachers (79% in schools with a high proportion, and 81% in schools with a medium proportion, compared 60% in schools with a low proportion of pupils with English as a second language).[132]

Those from schools in Scotland with a higher proportion of minority ethnic pupils were more likely to report that there was a shortage of food education teachers (80% in schools with a high proportion, 69% in schools with a medium proportion, and 59% in schools with a low proportion of minority ethnic pupils).[133]

Variation According to School Profile (England)

In England, those from mixed-sex schools were more likely than those from single-sex schools to report that there was a shortage of food education teachers (56%, compared to 31% in mixed-sex schools).[134]

In England, those from schools with non-selective admissions policies were most likely to report that there was a shortage of food education teachers (56%, compared to 41% in schools without a 'non-selective' approach to admission).[135]

Variation by Gender

Men were more likely than women to report that there was a shortage of food education teachers (73%, compared to 56% of women).[136]

Issues and Implications

Most respondents report that pressures on food education staff have intensified this school year, with more time spent sourcing ingredients, a shortage of teachers, and increased demands on technician's time. Shortages of teachers were more likely to be reported in schools that adopted a 'non-selective' approach to pupil enrolement.

Changes Related to Pupils

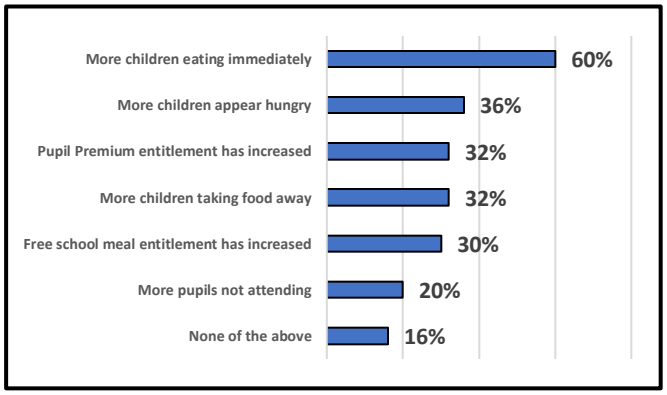
What we Asked

The third multiple-response question to explore change in the current school year, concerned pupils. We canvassed opinion on six issues, inviting respondents to indicate all that that they have observed in the current school year.

Headlines

Most respondents identified at least one change among pupils in the current school year (84%).

Most respondents noted that more children than before were eating food immediately after class (60%), with around one-third observing that more children appeared hungry (36%) and more children were taking the food away (32%). Together, these would suggest that more children are evidencinga greater need for the food produced through Food Education classes.



Cases: 889

We explored whether there was variation according to whether children appeared hungry in school during the current school year.

Variation Across the UK

Approaching one-half of respondents from Scotland observed that more children were appearing hungry in class (47%, higher than the rest of the UK where 32% observed the same).[137]

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), a far higher proportion (and majority) of respondents from Wales reported more pupils showing hunger: in contrast, a clear majority of respondents from Northern Ireland reported that there was no significant increase in children who appeared hungry in class.

Variation According to School Profile (Scotland)

In Scotland, those from schools with fewer S5/S6 pupils in the school roll were more likely to report that more children are now appearing hungry in class (61% in schools with a low proportion, compared to 46% in schools with a medium proportion and 34% in schools with a low proportion of S5/S6 pupils).[138]

Those from schools in Scotland with a higher proportion of children with Additional Special Needs were more likely to report that more children are now appearing hungry in class (67% in schools with a low proportion, compared to 47% in schools with a medium proportion and 34% in schools with a low proportion of ASN pupils).[139]

Those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to report that more children are now appearing hungry in class (70% in schools with a high proportion, compared to 46% in schools with a medium proportion and 29% in schools with a low proportion of pupils entitled to free school meals).[140]

Those from schools in Scotland with a higher proportion of children who from the 20% Most Deprived Areas were more likely to report that more

children are now appearing hungry in class (73% in schools with the highest proportion, compared to 61% in schools with a high proportion, 49% of those in schools with a low proportion and 24% in schools with the lowest proportion of pupils from the most Deprived Areas).[141]

Those from schools in Scotland with the highest rates of attendance were last likely to report that more children are now appearing hungry in class (37% in schools with the highest attendance rates, compared to 54% in schools with a medium/low attendance rate.[142]

Variation According to School Profile (England)

In England, those from girls-only schools were less likely than those from mixed-sex schools to report that more children appeared hungry in class this year (7%, compared to 35% in mixed-sex schools).[143]

In England, those from schools with state-funded secondary schools were more likely than those from independent schools to report that more children appeared hungry in class this year (34%, compared to 6% in independent schools).[144] There were no differences between Academy schools and schools managed by the local authority.

In England, those from schools in which a high proportion of pupils were entitled to free school meals were more likely than those from independent schools to report that more children appeared hungry in class this year (47% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 33% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 22% of those with less than one-tenth of pupils entitled to FSM).[145]

Variation According to Years in Profession

Those with fewer years in the profession were more likely to observe that more children were appearing hungry in this school year (43% of those with no more ten years in the profession, compared to 33% of those with between 11 and 20 years in the profession, and 29% of those with more than 20 years in the profession).[146]

Issues and Implications

Many practitioners noticed increases in indicators of need among children attending Food Education, with most observing that more childen are eating the food prepared in class immediately after class. Less than one-in-six reported not observing any increase in these six indicators in the current school year.

More teachers in both England and Scotland observed these indicators of need among pupils, with significantly higher incidence of pupils appearing hungry in schools with a higher proportion of pupils from disadvantaged backgrounds.

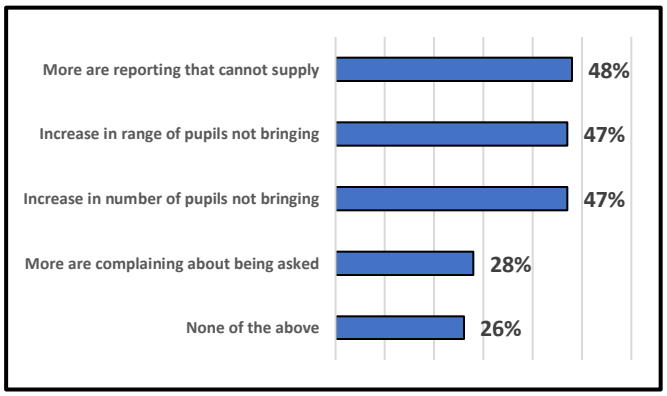
Changes Related to Pupils and Ingredients

What we Asked

The fourth multiple-response question to explore change in the current school year, concerned pupils and the provision of ingredients. We canvassed opinion on four issues, inviting respondents to indicate all that they observed in the current school year. We included a 'not applicable' option for cases where pupils were not asked to provide ingredients.

Headlines

Three-quarters reported some difficulties related to pupils supplying ingredients in the current school year.



Cases: 454

We explored whether there were differences according to whether there has been an increase in the number of pupils not bringing ingredients.

Variation According to School Profile (England)

In England, those from schools with state-funded secondary schools were more likely than those from independent schools to report the number of children not bringing ingredients to class had increased this year (38%, compared to 6% in independent schools).[147] This was less likely to be reported in Academy schools compared to schools managed by the local authority (34% and 45%, respectively).

In England, those from smaller schools were less likely to report an increase in the number of children not bringing ingredients to class had increased this year (15% of those from schools with less than 500 pupils, compared to 35% of those from schools with between 510 and 1000 pupils, and 37% of those with more than 1000 pupils).[148]

In England, those from schools in which a high proportion of pupils were entitled to free school meals were less likely to report children not bringing ingredients to class had increased this year (25% of those from schools in which at least one quarter of pupils were entitled to FSM, compared to 41% of those from schools with between one-tenth and one-quarter of pupils entitled to FSM, and 42% of those with less than one-tenth of pupils entitled to FSM).[149]

Variation According to Years in Profession

Those working in education the longest were least likely to report that the number of pupils not bringing ingredients to class had increased this year (37% of those who has worked in the sector for more than 20 years, compared to 53% of those who had worked between 11 and 20 years, and 53% of those who had worked for less than 10 years). [150]

Variation According to Whether Entitled to Free School Meals as a Pupil

Those who were entitled to claim free school meals when pupils were most likely to report that the number of pupils not bringing ingredients to class had increased this year (59%, compared to 46% of those who were not entitled to free school meals as pupils.[151]

Issues and Implications

These findings reinforce the evidence that wider cost of living pressures are presenting challenges for teachers in managing food education. Three-quarters of teachers report some difficulties in class, with one-half alone reporting increases in the number and range of pupils not bringing ingredients to class.

In England, the highest levels of children not meeting the requirements to bring ingredients to class was characteristic of schools with fewer disadvantaged pupils. This suggests that the difficulties contributing to food education are being experienced by a wider range of families that might otherwise have been expected.

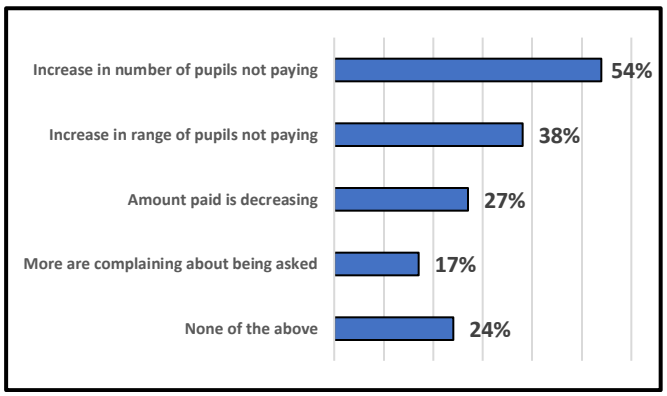
Changes Related to Pupils and Financial Contributions

What we Asked

The penultimate multiple-response question to explore change in the current school year, concerned pupils and financial contributions. We canvassed opinion on four issues, inviting respondents to indicate all that they observed in the current school year. We included a 'not applicable' option for cases where pupils were not asked to make a financial contribution.

Headlines

Three-quarters reported some difficulties related to making a financial contribution in the current school year.



Cases: 252

We explored whether there were differences according to whether there has been an increase in the number of pupils not paying.

Variation According to School Profile (England)

In England, those from schools with state-funded secondary schools were more likely than those from independent schools to report the number of children not making a financial contribution had increased this year (23%, compared to 3% in independent schools).[152] There were no differences between Academy schools and schools managed by the local authority.

In England, those from smaller schools were less likely to report an increase in the number of children not making a financial contribution had increased this year (15% of those from schools with less than 500 pupils, compared to 35% of those from schools with between 510 and 1000 pupils, and 37% of those with more than 1000 pupils).[153]

Issues and Implications

The increased evidence of difficulties encountered by families in making financial contributions to food education reinforce the findings for ingredients.

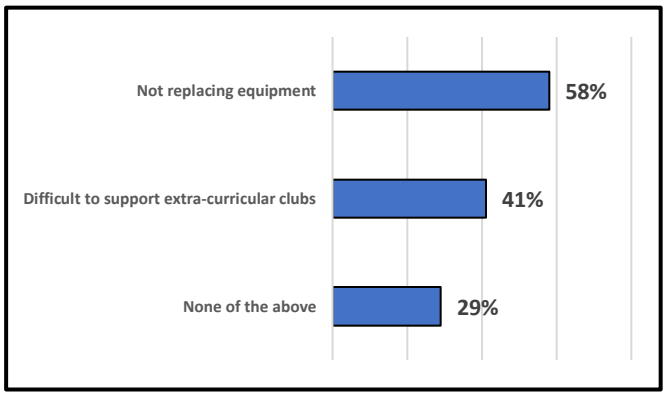
Changes Related to Broader Aspects of Food Education

What we Asked

The final multiple-response question to explore change in the current school year, concerned broader aspects of provision. We canvassed opinion on two issues, inviting respondents to indicate those that they observed in the current school year.

Headlines

Most expresed concern that equipment is not being replaced and a substantial minority noted that difficulties are being faced supporting extra-curricular clubs.



Cases: 873

We explored whether there were differences according to whether equipment was being replaced.

Variation Across the UK

Respondents from Scotland were more likely to report that they were not replacing as much equipment compared to previous years (65% in Scotland, compared to 55% for the rest of the UK).[154]

Respondents from Scotland were also more likely to report that it was more difficult to support extra-curricular cooking clubs compared to previous years (50% in Scotland, compared to 38% for the rest of the UK).[155]

Variation According to School Profile (Scotland)

Although not achieving the threshold for 'statistical significance', it may be useful to note that those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to report that it was more difficult to support extra-curricular cooking clubs compared to previous years (65% in schools with a high proportion, compared to 49% in schools with a medium/low proportion of pupils entitled to free school meals).[156]

Those from schools in Scotland with a higher proportion of children who from the 20% Most Deprived Areas were more likely to report that it was more difficult to support extra-curricular cooking clubs compared to previous years (61% in schools with the highest proportions, compared to 46% in schools with the lowest proportions of pupils from the most Deprived Areas).[157]

Variation According to School Profile (England)

In England, those from mixed-only schools were more likely than those from single-sex schools to report that not as much as equipment was being replaced this year (57%, compared to 31% in single-sex schools).[158]

In England, those from schools with non-selective admissions policies were most likely to report that not as much as equipment was being replaced this year (56%, compared to 42% in schools without a 'non-selective' approach to admission).[159]

In England, those from schools with a lower proportion of pupils from non-white British ethnic background were more likely to report that not as much as equipment was being replaced this year (64% of those from schools with less than 5% of pupils from non-white British ethnic backgrounds and 67% for schools with under 10% of the same, compared to 50% from schools with at least one-in-ten pupils with a non-white British ethnic background).[160]

In England, those who were schools with a lower proportion of pupils whose first language is not English were more likely to report that not as much as equipment was being replaced this year (63% of those in schools with a low proportions [under 5%], 56% of those in schools with a medium proportion [between 5% and 10%] 48% of those with a high proportion of pupils whose first language is not English [over 10% of pupils]).[161]

Variation According to Years in Profession

Those working in education the longest were least likely to report that it was more difficult to support extra-curricular cooking clubs compared to previous years (34% of those who has worked in the sector for more than 20 years, compared to 41% of those who had worked between 11 and 20 years, and 47% of those who had worked for less than 10 years). [162]

Variation by Gender

Men were more likely than women to report that it was more difficult to support extra-curricular cooking clubs compared to previous years (57%, compared to 40% of women).[163]

Issues and Implications

Most practitioners also express concern that the current challenges are having hidden consequences with most expressing concern that equipment is not being replaced and that difficulties are being faced supporting wider education, such as extra-curricular clubs.

11. Food Education, Food Insecurity and Well-being

A secondary focus of the research was to explore the role of food education in tackling food insecurity and promoting wellbeing.

We canvassed opinion on:

- whether food education tackled food insecurity,
- whether food education should tackle food insecurity,
- what actions should be undertaken to ensure that food education tackled food insecurity,
- whether it was desirable for food education to work more closely with social subjects (to explore food poverty). And
- whether it was desirable for food education to work more closely with physical education (to explore well-being and healthy living).

We struggle with time allocation as we are on a carousel system. We would love to be able to teach about food budgeting, food banks, etc but we are so squeezed for time.

A big shift in the focus for HE was the introduction of Curriculum for Excellence in Scotland where Health and well-being was given equal importance as numeracy and literacy in schools. We need to make sure as HE teachers that we continue to grasp the importance of the HWB aspects and ensure that as HE teachers we 'fight' to ensure we are not marginalised or pushed aside in favour of the more traditional curriculum subjects.

I would say that our courses are ever changing with the current climate relating to Food poverty, we try where we can in BGE courses to make tasty budget meals that can be recreated at home. We offer pupils their recipe booklets home for family use. We educate about the importance of Food budgeting, how to reduce food waste, Farm to fork. We keep recipes to the likes of pupils, instead of pupils making food that they would not eat, making collection more likely. We are seeing that a lot more pupils are actually eating their food in class or on way to next class. especially early morning and after lunch.

It's limited by time constraints, 1hr lessons, class sizes are constantly increasing to unsafe levels. Importance of subject linked to grades rather than life education.

Students have great joy as well as educational support in their cooking classes. It engages students who may otherwise have behaviour or social difficulties in other subjects and also enables the staff to identify issues at home and safeguarding concerns that food discussions can bring to the front. It identifies young carers and those with poverty and neglect at home.

Teaching about food banks can be a highly emotional topic when we know students families may rely on them. We have quite a high number of PP and even run a school based one. Ofsted also insist we are non-political and so guidance on how to explain why we need them, without creating a further sense of shame for those that do use them would be helpful.

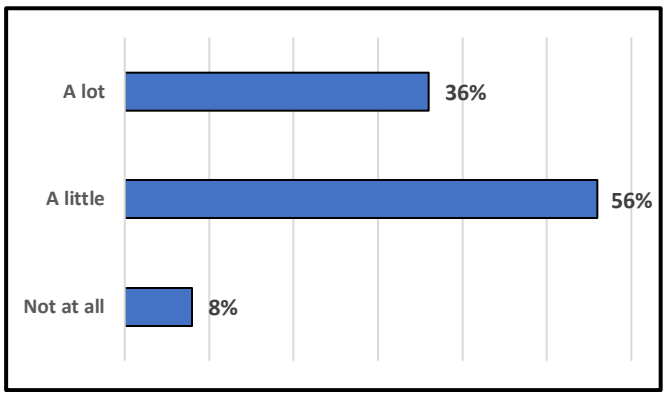
Does Food Education Tackle Food Insecurity?

What we Asked

We asked, “in your opinion, to what extent DOES Food Education contribute to tackling food insecurity?”, offering three response options. We also offered a “do not know’ (71 respondents) and ‘rather not say’ (9 respondents) option.

Headlines

The majority of respondents reported that food education contributes to tackling poverty in some way (56% reporting it contributes “a little”, with a further 36% reporting that it contributes “a lot”). Only a very small proportion reported “not at all” (8%).



Cases: 797

Variation According to Role

Although the overall patterning of response was similar, teachers were twice as likely as managers to believe that food education contributes to tackling food insecurity (9%, compared to 4% of managers).[164]

Issues and Implications

The results are unequivocal, with most staff working in the food education believing that food education does tackle food insecurity, at least “a little”.

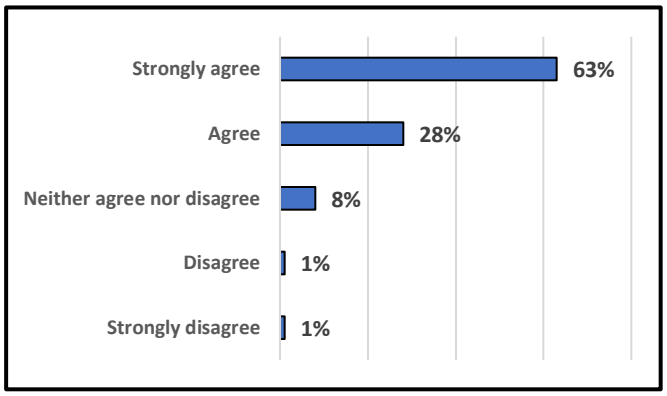
Should Food Education Tackle Food Insecurity?

What we Asked

We asked, “in your opinion, should food education in secondary/high schools have a role in tackling food insecurity?”, inviting respondents to choose from one of five options ranging from ‘strongly agree’ to ‘strongly disagree’. We also offered a ‘do not know’ (16 respondents) and a ‘rather not say’ option (no-one selected this option).

Headlines

Most agreed that food education should have a role in tackling food insecurity (91%), with the majority of these ‘strongly agreeing’ (63%).



Cases: 864

We explored whether there was variation between those who agreed that food education should tackle food insecurity and those who did not (either disagreed, or neither dis/agreed). However, no variation was found.

Issues and Implications

Most practitioners opined that food education should contribute to tackling food insecurity. Together with the evidence on impact, there is a clear message from practitoiners that food education should and does have an impact on tackling food insecurity.

Actions for Food Education to Contribute to Tackling Food Insecurity

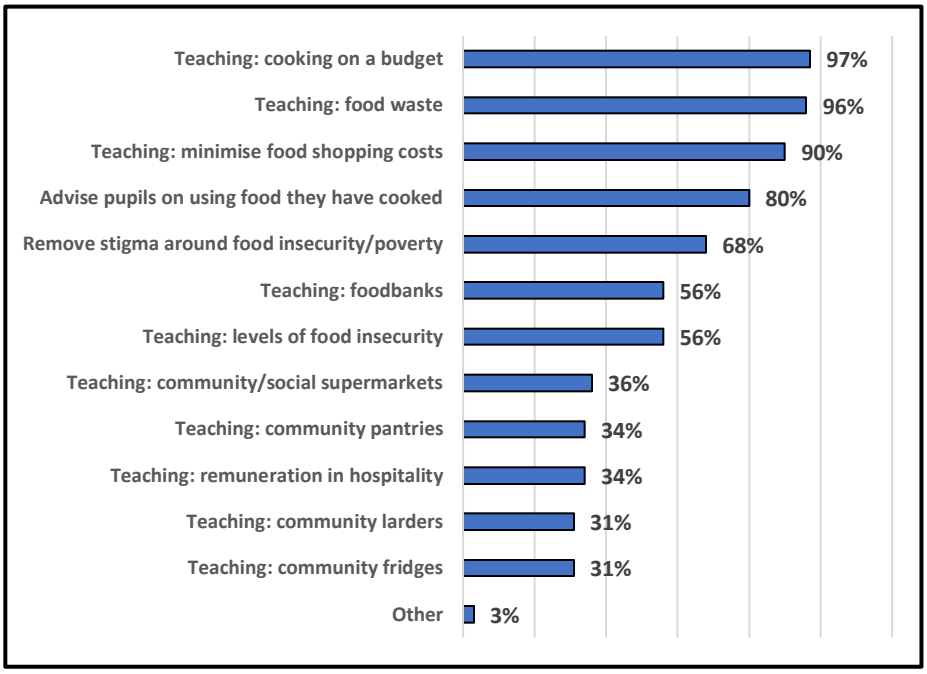
What we Asked

We asked, "in your opinion, in which of the following ways should Food Education in schools contribute to tackling food insecurity?", inviting respondents to select all that applied from a list of ten options. We also offered an 'Other' option, inviting them to describe other ways they think schools should contribute.

Headlines

A wide range of actions were reported to describe the ways in which food education could contribute to tackling food insecurity. Some of these had almost universal appeal (e.g., teaching how to cook on a budget), while others appealed to the majority (e.g., teaching about levels of food insecurity), and others only by a minority (e.g., teaching about community pantries).

We explored whether there was any variation according to whether it was considered that pupils should be taught about levels of food insecurity, and about community pantries.



Cases: 869

Teaching About Food Insecurity – Variation According to School Profile (Scotland)

Although not achieving the threshold for 'statistical significance', those responding from schools in Scotland with a high number of pupils with ASNs were more likely to consider that pupils should be taught about levels of food insecurity in food education (74% in schools with a high proportion, compared to 55% in schools with a medium proportion and 53% in schools with a low proportion of ASN pupils).[165]

Those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to consider that pupils should be taught about levels of food insecurity in food education (78% in schools with a high proportion, compared to 54% in schools with a medium/low proportion of pupils entitled to free school meals).[166]

Similarly, those from schools in Scotland with a higher proportion of children who from the 20% Most Deprived Areas were more likely to consider that pupils should be taught about levels of food insecurity in food education (82% in schools with the highest proportion, compared to 65% in schools with a high proportion, 49% of those in schools with a low proportion and 53% in schools with the lowest proportion of pupils from the most Deprived Areas).[167]

Those from schools in Scotland with the lowest rates of attendance were most likely to consider that pupils should be taught about levels of food insecurity in food education (fourteen of the fifteen from schools with low attendance rates [93%], compared to 59% in schools with a medium attendance rate and 51% in schools with a high attendance rate.[168]

Teaching About Food Insecurity – Variation According to School Profile (England)

In England, those who were schools with a lower proportion of pupils whose first language is not English were less likely to consider that pupils should be taught about food insecurity (49% of those in schools with a low proportions [under 5%], compared to 63% of those in schools with a medium proportion [between 5% and 10%] and 60% of those with a high proportion of pupils whose first language is not English [over 10% of pupils]).[169]

Teaching About Food Insecurity – Variation by Gender

Although not achieving the threshold for 'statistical significance', men were more likely than women to consider that pupils should be taught about levels of food insecurity in food education (70%, compared to 55% of women).[170]

Teaching About Community Pantries – Variation According to School Profile (Scotland)

Those responding from schools in Scotland with a high number of pupils with ASNs were more likely to consider that pupils should be taught about community pantries (50% in schools with a high proportion, compared to 40% in schools with a medium proportion and 25% in schools with a low proportion of ASN pupils).[171]

Those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to consider that pupils should be taught about community pantries (60% in schools with a high proportion, compared to 32% in schools with a medium proportion of pupils and 31% in schools with a low proportion of pupils entitled to free school meals).[172]

Similarly, those from schools in Scotland with a higher proportion of children who from the 20% Most Deprived Areas were more likely to consider that pupils should be taught about community pantries (59% in schools with the highest proportion, compared to 46% in schools with a high proportion, 29% of those in schools with a low proportion and 29% in schools with the lowest proportion of pupils from the most Deprived Areas).[173]

Those from schools in Scotland with the lowest rates of attendance were most likely to consider that pupils should be taught about community pantries (ten of the fifteen from schools with low attendance rates [67%], compared to 39% in schools with a medium attendance rate and 30% in schools with a high attendance rate.[174]

Issues and Implications

A wide range of actions were reported to describe the ways in which food education could contribute to tackling food insecurity. In Scotland, there was some evidence to suggest that support for specific actions to tackle food insecurity through food education (teaching about food insecurity and teaching about community pantries) was strongest in schools serving pupils with a higher proportion of pupils from disadvantaged areas.

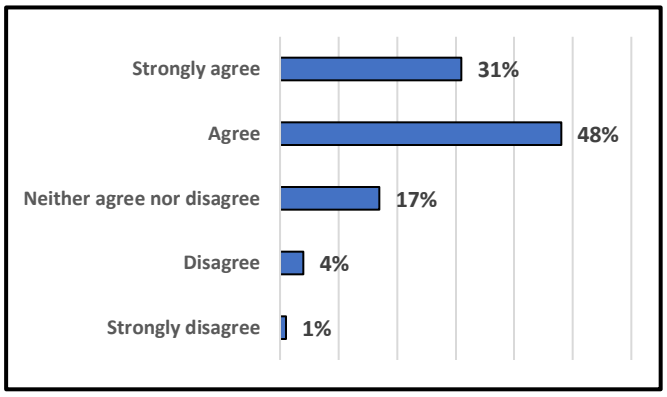
Closer Links with Social Subjects to Explore Food Insecurity

What we Asked

We asked, "to what extent do you agree with the statement: food education should be more closely involved with social subjects to explore food poverty as a cross-curricular issue?", inviting respondents to choose from one of five options ranging from 'strongly agree' to 'strongly disagree'. We also offered a 'do not know' (20 respondents) and a 'rather not say' option (3 selected this option).

Headlines

Most agree that stronger links should be made with social subjects to explore food insecurity as a cross-curricular issue (79%).



Cases: 855

We explored variation by comparing those who agreed and those who did not (neither dis/agree, and those who disagreed).

Variation Across the UK

Those from the rest of the UK were more likely than those from Scotland to 'strongly agree' that closer links should be explored with social subjects to explore food poverty (34%, compared to 22% from Scotland).[175]

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), a far higher proportion of respondents from Wales strongly agreed that closer links should be explored.

Variation According to School Profile (Scotland)

Those from schools in Scotland with a higher proportion of children who from the 20% Most Deprived Areas were more likely to opine that food education should work more closely with social subjects to educate on tackling food insecurity (79% in schools with the highest proportion, compared to 66% in schools with a lower proportion of pupils from the most Deprived Areas).[176]

Issues and Implications

Not only is there support for addressing food insecurity in food education, there is also support for approaching this as a cross-curricular issue. The strength of opinion in favour of closer links would suggest that this may be an issue worth exploring in future curriculum reviews across the UK. Interestingly, there was slightly less support for this in Scotland (albeit with a majority still in favour of it), despite their being a stronger rationale for cross-curricular education in Scotland with its Curriculum for Excellence

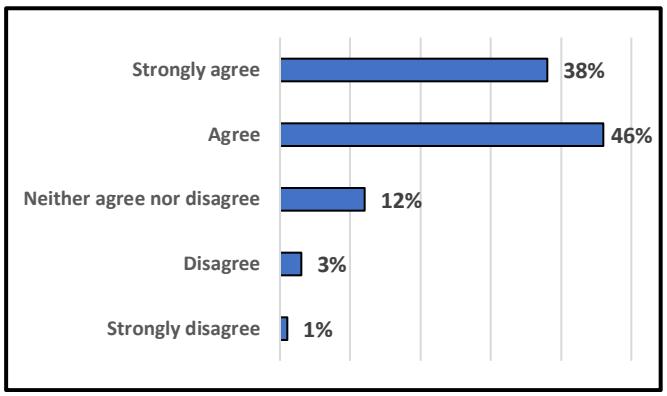
Closer Links with Physical Education to Explore Well-Being and Healthy Living

What we Asked

We asked, "to what extent do you agree with the statement: food education should be more closely involved with physical education to explore well-being and healthy living as a cross-curricular issue?", inviting respondents to choose from one of five options ranging from 'strongly agree' to 'strongly disagree'. We also offered a 'do not know' (5 respondents) and a 'rather not say' option (no-one selected this option).

Headlines

Most agree that stronger links should be made with physical education to promote well-being and healthy living as a cross-curricular issue (84%).



Cases: 874

We explored variation by comparing those who strongly agreed and those who did not (neither dis/agree, and those who disagreed). However, no significant differences were evident.

Variation According to School Profile (Scotland)

Those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to opine that food education should work more closely with physical education to promote well-being (45% "strongly agreed" in schools with the highest proportion, compared to 35% in schools with a middling proportion of pupils and 32% of those from schools with the lowest proportion).[177]

Variation According to School Profile (England)

In England, those from state-funded secondary schools were more likely than those from independent schools to perceive that food education should work more closely with physical education to promote well-being (88%, compared to 76% in independent schools).[178] Those from school maintained by local authorities were more likely than those from Academy schools to agree (92%, compared to 87%).

Issues and Implications

Support to explore cross-curricular links to promote well-being and healthy living is even higher than that expressed to tackle food poverty. There is strong support for such an approach among teachers of food education.

12. Perceptions of Food Education

We asked a series of questions to canvass perceptions of how Food Education teachers perceived that their subject was viewed by other groups –

- parents/guardians
- pupils,
- other teachers,
- senior management, and
- wider society.

For each we offered a 'do not know' and a 'no clear majority opinion' option.

Those who were able to offer a firm opinion, indicated that Food education was viewed as either:

- 'not important',
- 'important, but not as important as other subjects', or
- 'just as important as other subjects'.

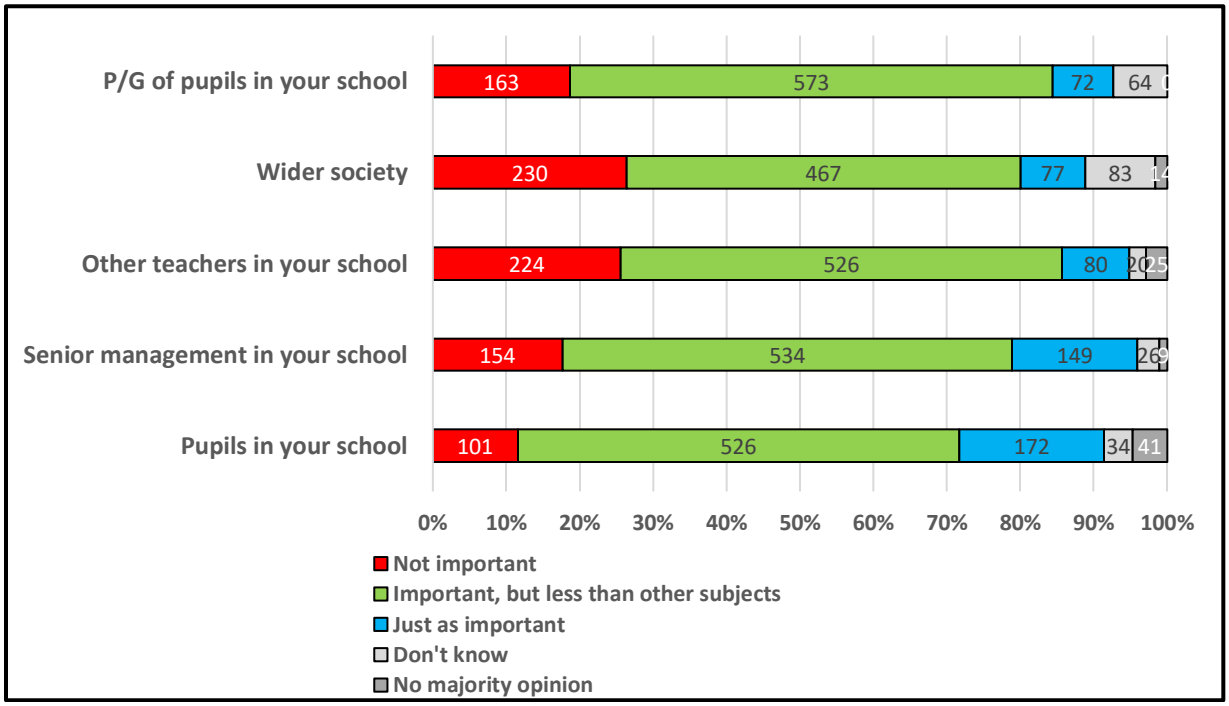
The findings for each are presented in the following pages.

Pupils enjoy the subject, very little disruptive behaviour in lessons compared to other curriculum areas.

All the students are very enthusiastic about cooking, but do not enjoy the theory & understanding the nutritional value of food.

Continually feeling undervalued by other staff and some pupils. Attitudes have not really changed to the value of Food education. Management say the right things about the subject but their actions (cutting budget, cutting technicians hours, etc) don't support the subject.

It is viewed by some - pupils/parents/other teachers as an inferior qualification - often pupils are placed in or encouraged to take practical cookery to fill a column space.



Cases: 871 to 875

What Senior Management in Your School Think About Food Education

What we Asked

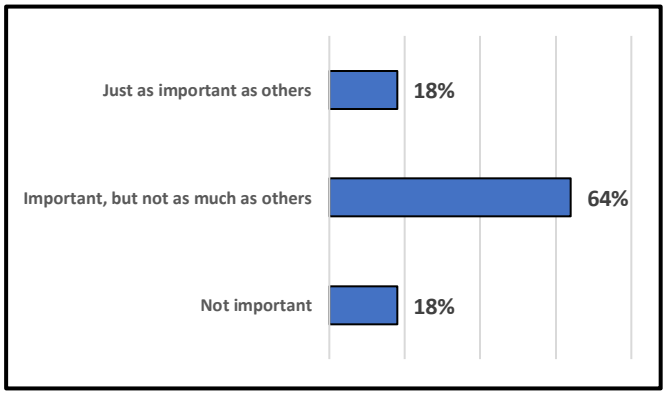
We asked, "in your opinion, how is the subject of Food Education in schools viewed by SENIOR MANAGEMENT in your school?"

Some indicated that they 'did not know' (26 respondents) or that there was 'no clear majority opinion' (9 respondents).

Headlines

In common with all questions in this suite, most respondents (two-thirds in this instance) believed that senior management considered that food education was "important, but not as important as other subjects".

Although the broad patterning of response was consistent across populations, more respondents were likely to consider that senior management (and pupils) were likely to consider that food education was 'just as important as other subjects' (18%).



Cases: 872

Variation Across the UK

Respondents from Scotland were almost twice as likely as those from the rest of the UK to believe that senior management considered that food education was 'just as important as other subjects' (27%, compared to 14% in the rest of the UK).[179]

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), a far higher proportion of respondents from Northern Ireland reported that senior management considered food education as just as important as other subjects (and fewer believed that they considered that it was 'not important').

Variation According to School Profile (Scotland)

In Scotland, those from schools with fewer S5/S6 pupils in the school roll were more likely to report that senior management considered food education to be "just as important as other subjects" (41% in schools with a low proportion, compared to 23% in schools with a medium proportion and 9% in schools with a high proportion of S5/S6 pupils).[180]

Those from schools in Scotland with a higher proportion of children with Additional Special Needs were more likely to report that senior management considered food education to be "just as important as other subjects" (15% in schools with a low proportion, compared to 25% in schools with a medium proportion and 40% in schools with a high proportion of ASN pupils).[181]

Variation According to School Profile (England)

In England, those from smaller schools were more likely to perceive that senior management considered food education to be 'just as important as other subjects' (29% of those from schools with less than 500 pupils, compared to 12% of those from schools with between 510 and 1000 pupils, and 11% of those with more than 1000 pupils).[182]

Variation According to Role

Although sharing the same patterning of response, teachers were more likely than management to believe that senior management considered that food education was 'not important' (21% of teachers, compared to 14% of senior management).[183]

Variation According to Years in Profession

Although sharing the same patterning of response, the number of years spent in a teaching profession was associated with perceptions of how senior management regarded food education. Those with more years in the profession were more likely to believe that senior management considered that food education was 'just as important' (22% of those with more than twenty years of experience, compared to 17% of those with between 11 and 20 years of experience, and 14% of those with less than ten years of experience).[184]

Issues and Implications

The key conclusion – throughout the UK and among all sub-groups – was that most perceived that senior management considered food education to be 'important, but not as important as other subjects'. Also of note is that there was a stronger belief in Scotland that senior management was more supportive of food education, particularly in schools with a low proportion of S5/S6 pupils among the pupil population. However,

What Other Teachers in Your School Think About Food Education

What we Asked

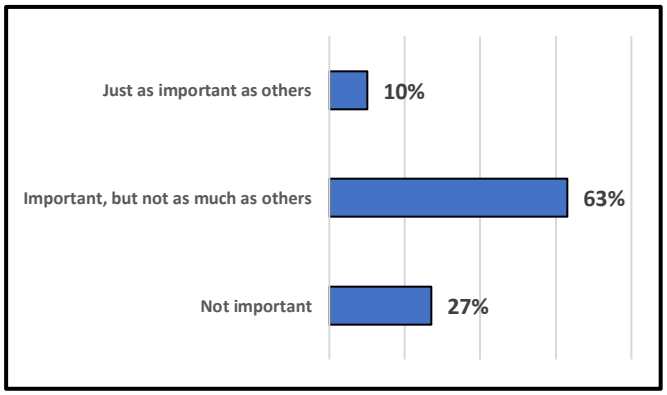
We asked, "in your opinion, how is the subject of Food Education in schools viewed by most OTHER TEACHERS in your school?"

Some indicated that they 'did not know' (20 respondents) or that there was 'no clear majority opinion' (25 respondents).

Headlines

In common with all questions in this suite, most respondents (three-fifths in this instance) believed that other teachers considered that food education was "important, but not as important as other subjects".

Although the broad patterning of response was consistent across populations, more respondents were likely to consider that other teachers (and wider society) were more likely to consider that food education was 'not important' (27%).



Cases: 830

Variation by Gender

Men were more likely than women to take 'stronger' positions. More men considered that other teachers considered food education to be 'not important' (33% of men, compared to 27% of women). Yet, more men also considered that other teachers considered food education to be 'just as important as other subjects' (22% of men, compared to 9% of women).[185]

Variation According to Whether Entitled to Free School Meals as a Pupil

Those who were entitled to free school meals as a pupil were thrice less likely to believe that other teachers considered food education to be 'just as important as other subjects' (3%, compared to 11% of those who did not take free school meals as pupils).[186]

Variation According to School Profile (Scotland)

Although only 12 respondents were from a small school in Scotland (less than 500 pupils), it was notable that none indicated that they perceived that other teachers considered food education to be "not important": this compared to one-quarter in medium-sized schools (24%) and of one-third in larger schools (34%).

Variation According to School Profile (England)

In England, those from smaller schools were more likely to perceive that other teachers considered food education to be 'just as important as other subjects' (26% of those from schools with less than 500 pupils, compared to 9% of those from schools with between 510 and 1000 pupils, and 8% of those with more than 1000 pupils).[187]

Issues and Implications

Once more, the key conclusion – throughout the UK and among all sub-groups – was that most perceived that other teachers considered food education to be 'important, but not as important as other subjects', although there was also a perception that other teachers were more likely to consider food education to be less important that other subjects.

What Parents/Guardians of Pupils in Your School Think About Food Education

What we Asked

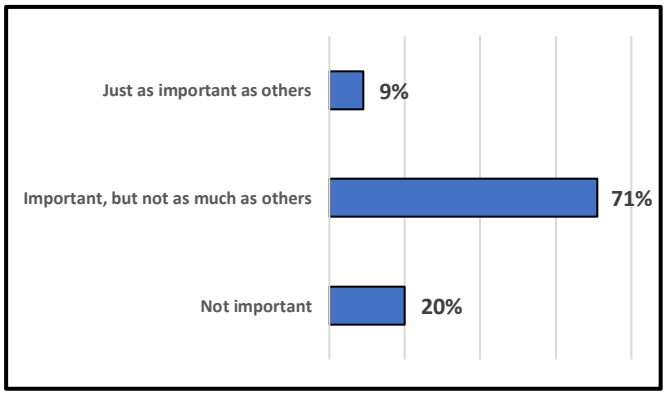
We asked, "in your opinion, how is the subject of Food Education in schools viewed by the parents/guardians of the pupils being taught in your school?"

Some indicated that they 'did not know' 65 respondents) or that there was 'no clear majority opinion' (no respondents).

Headlines

In common with all questions in this suite, most respondents (more than two-thirds in this instance) believed that parents/guardians considered that food education was "important, but not as important as other subjects".

Although the broad patterning of response was consistent across populations, more respondents were likely to consider that parents perceived that food education was 'important, but just not as important as other subjects' (71%).



Cases: 808

Variation Across the UK

More respondents from Scotland perceived that parents/guardians thought that Food Education was 'Not Important' (27% in Scotland, compared to 18% in the rest of the UK.[188]

Variation According to School Profile (Scotland)

Those from schools in Scotland with the highest rates of attendance were least likely to perceive that parents/guardians' viewed food education to be "not important" (15% in schools with the highest attendance rates, compared to 35% in schools with a medium/low attendance rates).[189]

Those from non-denominational schools in Scotland were least likely to perceive that parents/guardians' viewed food education to be "not important" (23%, compared to 41% of those reporting from Roman Catholic schools).[190]

Variation According to School Profile (England)

In England, those from rural schools were more likely to perceive that parents/guardians were likely to regard food education as 'just as important as other subjects' (20%, compared to 10% from those schools in small cities and towns, and 5% of those from large urban conurbations).[191]

Variation According to Years in Profession

Although sharing the same patterning of response, the number of years spent in a teaching profession was associated with perceptions of how parents/guardians regarded food education. Those with fewer years in the profession were more likely to perceive that parents/guardians considered that food education was 'not important' (15% of those with more than twenty years of experience, compared to 18% of those with between 11 and 20 years of experience, and 26% of those with less than ten years of experience).[192]

Issues and Implications

Although reinforcing the general conclusion that food education is “important, but not as important as other subjects”, staff from Scotland were more likely than other parts of the UK to perceive that parent/guardians did not consider food education to be important. Interestingly, in Scotland, the perception that parents/guardians were less supportive of food education was strongest in schools with less engaged pupils (as evidenced by rates of attendance).

What Most Pupils in Your School Think About Food Education

What we Asked

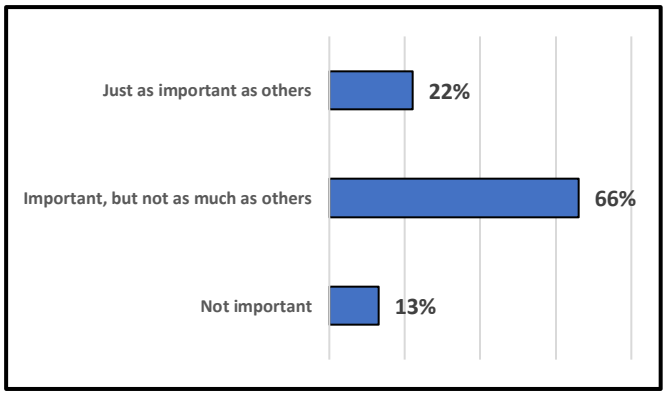
We asked, "in your opinion, how is the subject of Food Education in schools viewed by most pupils in your school?"

Some indicated that they 'did not know' (34 respondents) or that there was 'no clear majority opinion' (41 respondents).

Headlines

In common with all questions in this suite, most respondents (two-thirds in this instance) believed that pupils considered that food education was "important, but not as important as other subjects".

Although the broad patterning of response was consistent across populations, more respondents were likely to consider that pupils (and senior management) perceived that food education was 'just as important' as other subjects (22%).



Cases: 799

Variation Across the UK

Respondents from Scotland were almost twice as likely than those from the rest of the UK to perceive that pupils' considered food education to be 'not important' (18% in Scotland, compared to 11% across the rest of the UK).[193]

Notwithstanding the need for cautious interpretation of Welsh and Northern Irish data (noted earlier), the distribution of opinion for respondents from Northern Ireland was like that in Scotland.

Variation According to School Profile (Scotland)

Although not achieving the threshold for 'statistical significance', it may be useful to note that more of those responding from schools in Scotland with a high proportion of S5/S6 among pupils were more likely to perceive that pupils considered food education to be "not important" (35%, compared to 17% in schools with a middling proportion of S5/S6 pupils, and 10% of those from schools with a low proportion of S5/S6 pupils).[194]

Similarly, although not achieving the threshold for 'statistical significance', it may be useful to note that those from Roman Catholic schools in Scotland were more likely to perceive that pupils' considered food education to be "not important" (30%, compared to 14% of those from non-denominational schools).[195]

Variation According to School Profile (England)

In England, those from schools with non-selective admissions policies were less likely to perceive that pupils in their school were likely to view food education as 'just as important as other subjects' (22%, compared to 34% in schools without a 'non-selective' approach to admission).[196]

In England, those from the smallest schools were most likely to perceive that most pupils considered food education to be 'just as important as other subjects' (42% of those from schools with less than 500 pupils, compared to 17% of those from schools with between 510 and 1000 pupils, and 26% of those with more than 1000 pupils).[197]

Issues and Implications

Once more, these results reinforce the general conclusion that food education is "important, but not as important as other subjects".

What Wider Society Thinks About Food Education

What we Asked

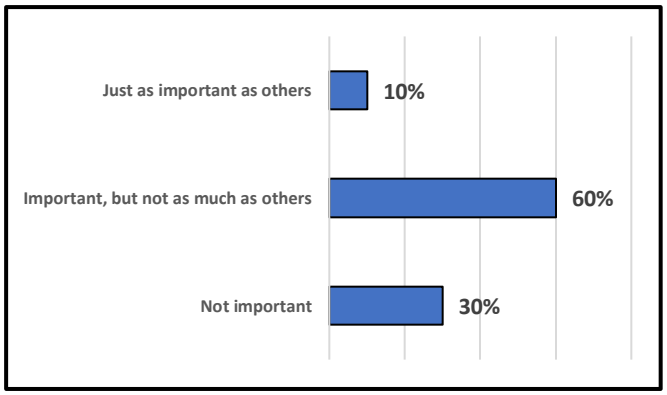
We asked, "in your opinion, how is the subject of Food Education in schools viewed by wider society?"

Some indicated that they 'did not know' (83 respondents) or that there was 'no clear majority opinion' (14 respondents).

Headlines

In common with all questions in this suite, most respondents (three-fifths in this instance) perceived that pupils considered that food education was "important, but not as important as other subjects".

Although the broad patterning of response was consistent across populations, more respondents were likely to perceive that wider society (and other teachers) were more likely than senior management, pupils, and parents/guardians to consider that food education was 'not important' (30%).



Cases: 774

Variation According to School Profile (Scotland)

Those from schools in Scotland with a higher proportion of children who are entitled to free school meals were more likely to perceive that wider society considered that food education was "not important" (41% in schools with a high proportion, compared to 28% in schools with a medium proportion and 14% in schools with a low proportion of pupils entitled to free school meals).[198]

Variation According to Years in Profession

Although sharing the same patterning of response, the number of years spent in a teaching profession was associated with perceptions of how wider society regarded food education. Those with fewer years in the profession were more likely to perceive that wider society considered that food education was 'not important' (24% of those with more than twenty years of experience, compared to 27% of those with between 11 and 20 years of experience, and 38% of those with less than ten years of experience).[199]

Issues and Implications

Once more, these results reinforce the general conclusion that food education is perceived to be "important, but not as important as other subjects".

There may be some discordance in the social patterning of responses for parents/guardians and wider society. For the former, there was some evidence that staff perceived that parents/guardians from schools with less disadvantage were more supportive of food education, whereas here, there is some evidence that staff from schools with more disadvantages perceive that there is less support in wider society for food education.

13. Conclusion

What we Have Delivered

The research has delivered a 'state of the nation' summary of the experiences and opinions of teachers of food education across the UK in 2022. There are many positive conclusions to be drawn on the state of food education, but also some challenges.

What is abundantly clear is that there is considerable policy divergence and practice in the UK, with 'cost-free education' being delivered in Scotland in contrast to elsewhere. The extent to which this policy divergence reflects prior differences in outlook or has created differences in outlook is less clear – however, differences prevail.

On the other hand, there is a desire to converge, with strong support for more extensive coverage of food education, and the delivery of cost-free food education across the UK. In this conclusion, we summarise some of the key findings are draw some recommendations for 'next steps'.

Some Key Findings

In favour of cost-free food education

- Two-thirds of practitioners opined that no pupil should contribute to the cost of food education, with most of the remainder believing that cost should be made on a family's ability to pay.

Food education at a cost

- In all schools from Northern Ireland, and in around nine-in-every ten schools in Wales and England, pupils were required either to make a financial contribution to the cost of food education, or to supply ingredients. In sharp contrast, in Scotland – where the Scottish Government has provided funds to cover costs – 98% of respondents reported that pupils were not required to make a financial contribution or to provide ingredients.

Hidden costs and awareness of circumstance in Scotland

- Although pupils in state schools are not asked to make a financial payment or to supply ingredients, most teachers in Scotland reported that pupils were asked to contribute in other ways to the cost of food education by supplying equipment or consumables.

Access to food education

- Most teachers perceived that cost was a barrier to accessing food education, although this was much more common outside of Scotland (thrice as many in the rest of the UK considered cost to be a barrier to participation).
- Access to food education varies across the four UK nations, options particularly limited in England and Wales. A much wider range of options being presented in Scotland, and more schools in Scotland reported to offer what is available to pupils. Respondents from Northern Ireland reported widespread access to advanced level qualifications.

Implications of pupils not contributing to the cost of food education

- Although most schools in England, Wales and Northern Ireland will faciliate participation if pupils do not supply ingredients (if required), in a significant minority of schools the consequence is a lesser educational experience (e.g., the pupil observes the lesson, but does not take part in practical work) or is punitive (e.g., pupils are not permitted to take the food home).

Asks of parents

- Just over-one half of teachers reported that no advice was offered to families on how to source the ingredients that they were required to provide. Only one-in-five offered advice on where to source ingredients cheaply.

Highly variable asks

- There is much variation among those schools in England, Wales and Northern Ireland which ask families to make a financial contribution toward the cost of food education.

The work of sourcing ingredients for school education

- Most teachers reported that neither were travel costs reimbursed, nor was time spent sourcing ingredients counted as hours worked.

Technician support

- The lack of technician support was reported to have an adverse impact on food education. Almost all acknowledged that this increased teachers' workload, with a significant minority also noting that lessons had to be adapted, the quality of lessons decreased, and the workload for other technicians increased.

Food education in times of rising living costs

- Most practitioners reported changes to classroom practice in the current school year. These changes accommodated the circumstances which schools and families are encountering (for example, adapting recipes to make them more affordable). However, some changes were reducing the quality of the educational experience (for example, one-quarter reported more cooking in pairs).

Food education and food insecurity

- Most agreed that food education should have closer links with social subjects to explore food poverty as a cross-curricular issue.

How do we think others view food education?

- Most practitioners perceive that others think that food education is 'important, but less important than other subjects'.

Next Steps to Consider

1. **Campaign for cost free food education**. The research demonstrates strong support for cost free food education across the UK, with most practitioners opining it should be free, and that cost was a barrier to participation. Although support is found throughout the UK, support is strongest in Scotland where the Scottish Government has already committed funds to local government to enable core curriculum charges for food education to be waived.

2. **Campaign for an extended period of compulsory food education.** The research demonstrates strong support for providing pupils with access to food education for more of their school education. There is a perception among teachers of food education that the subject is valued by other stakeholders.

3. **The need for national conversations of food education.** Notwithstanding UK-wide support for cost free food education, there is significant variation across the UK, which suggests the need for national conversations to explore the UK-wide issues raised in this report, and those aspects of food education that are more pertinent to that nation. For example:
   a. **Northern Ireland.** It would be interesting to explore why there appears to be stronger support in Northern Ireland for parental contributions to food education, relative to other parts of the UK.
   b. **Scotland.** It would be interesting to explore why – with a Curriculum for Excellence that values inter-disciplinary learning – there is less support for food education to work more closely with social subjects to better understand food insecurity issues**.**
   c. **England.** It would be interesting to explore why smaller schools and schools with more disadvantaged pupils appear to offer more progressive approaches to some key aspects of access to food education.
   d. **Wales.** It would be interesting to explore the prospects for a wider range of options for food education being made available to pupils (also applies to England).

4. **Hidden cost of food education.** Providing ingredients, equipment and accessories are hidden costs. It would be useful to better understand the total cost to families of food education across the UK, and to reflect on whether these asks are reasonable and just.

5. **Promoting exemptions**. Although a range of exemptions are used to ensure that disadvantaged families have access to food education, there is evidence that these are not being promoted to parents: this could be rectified.

6. **Share practice in response to non-provision**. A wide range of responses were reported when pupils did not provide ingredients, payments, equipment, and accessories, which were asked of them. Some of these were punitive, others were grounded in inclusive principles to access food education. It would be useful to raise awareness of the wide range of ways in which schools are responding to this issue, and to work toward some agreed principles to achieve equity.

7. **Increasing hardships.** The hardships experienced by families in the cost-of-living crisis of 2022-23 were impacting on pupils' experiences of food education. There is a need to reflect on how schools should respond, and the extent to which food education should adapt practices.

8. **Technician support.** There is a need to reflect on the problems that were reported over a lack of technician support. There is a need to focus on the implications in smaller schools, where a lack of support was most evident.

9. **Disinvestment.** It was reported that there was a lack of investment in equipment and facilities for food education in the current school year. There is a need to reflect on the longer-term consequences if there is under-investment in food education.

10. **Connecting to wider issues.** There is support for promoting an understanding of the wider role of food in a healthy society, exploring how food education might be aligned to physical education to promote well-being, and to social subjects to promote a better understanding of food insecurity. The prospects for aligning food education to these wider issues – and other such as sustainability and community wealth-building – should be explored.

Annex 1: Literature Reviewed

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Notes

[1] UK Government, Department of Education (2022) *Statistics: Schools and Pupils Numbers 2022*. https://www.gov.uk/government/collections/statistics-school-and-pupil-numbers

[2] Scottish Government (2022) *School level summary statistics 2021*. https://www.gov.scot/publications/school-level-summary-statistics/

[3] Chi square = 20.712, d.f.=3, Sign. =<0.001, with no cells with an E.F. of less than five

[4] Chi square = 522.509, d.f.=3, Sign. =0.000, with no cells with an E.F. of less than five

[5] Chi square = 29.868, d.f.=1, Sign.=0.000 with one cell with an E.F. of less than five (25%)

[6] Chi square = 12.795, d.f.=2, Sign.=0.002 with no cells with an E.F. of less than five

[7] Chi square = 38.669, d.f.=6, Sign.=0.000, with no cells with an E.F. of less than five

[8] Chi square = 85.410, d.f.=6, Sign.=0.000 with no cells with an E.F. of less than five

[9] Chi square = 6.615, d.f.=2, Sign.=0.037, with no cells with an E.F. of less than five

[10] Chi square = 40.251, d.f.=1, Sign. =0.000, with no cells with an E.F. of less than five

[11] Chi square = 6.617, d.f.=2, Sign. =0.037, with no cells with an E.F. of less than five

[12] Chi square = 159.855, d.f.=3, Sign. =0.000, with no cells with an E.F. of less than five

[13] Chi square = 5.673, d.f.=1, Sign.=0.017 with one cell with an E.F. of less than five (25%)

[14] Chi square = 24.755, d.f.=1, Sign.=0.000 with one cell with an E.F. of less than five (25%)

[15] Chi square = 34.638, d.f.=2, Sign.=0.000, with no cells with an E.F. of less than five

[16] Chi square = 40.576, d.f.=2, Sign.=0.000 with no cells with an E.F. of less than five

[17] Chi square = 5.769, d.f.=2, Sign.=0.056 with no cells with an E.F. of less than five

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[20] Chi square = 326.980, d.f.=2, Sign. =<0.001, with no cells with an E.F. of less than five

[21] Chi square = 18.730, d.f.=2, Sign.=<0.001, with no cells with an E.F. of less than five

[22] Chi square = 23.593, d.f.=4, Sign.=<0.001, with no cells with an E.F. of less than five

[23] Chi square = 33.545, d.f.=4, Sign.=<0.001, with no cells with an E.F. of less than five

[24] Chi square = 79.009, d.f.=4, Sign.=<0.001, with no cells with an E.F. of less than five

[25] Chi square = 26.317, d.f.=2, Sign. =<0.001, with no cells with an E.F. of less than five

[26] Chi square = 10.142, d.f.=4, Sign. =0.038, with no cells with an E.F. of less than five

[27] Chi square = 8.325, d.f.=2, Sign.=0.016, with no cells with an E.F. of less than five

[28] Chi square = 6.168, d.f.=1, Sign.=0.013, with one cell with an E.F. of less than five (25%)

[29] Chi square = 7.395, d.f.=2, Sign.=0.025, with no cells with an E.F. of less than five

[30] Chi square = 8.312, d.f.=2, Sign.=0.016, with no cells with an E.F. of less than five

[31] Chi square = 13.117, d.f.=2, Sign.=0.001, with no cells with an E.F. of less than five

[32] Chi square = 6.601, d.f.=2, Sign.=0.037, with no cells with an E.F. of less than five

[33] Chi square = 4.830, d.f.=1, Sign.=0.028, with no cells with an E.F. of less than five

[34] Chi square = 5.406, d.f.=1, Sign.=0.020, with no cells with an E.F. of less than five

[35] Chi square = 3.736, d.f.=1, Sign. =0.053, with no cells with an E.F. of less than five

[36] Chi square = 144.835, d.f.=2, Sign. =<0.001, with no cells with an E.F. of less than five

[37] Chi square = 4.165, d.f.=1, Sign.=0.041, with no cells with an E.F. of less than five

[38] Chi square = 23.982, d.f.=2, Sign. =<0.001, with no cells with an E.F. of less than five

[39] Chi square = 10.855, d.f.=4, Sign.=0.028, with no cells with an E.F. of less than five

[40] Chi square = 8.121, d.f.=2, Sign. =0.017, with no cells with an E.F. of less than five

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[42] Chi square = 20.712, d.f.=3, Sign. =<0.001, with no cells with an E.F. of less than five

[43] Chi square = 4.269, d.f.=1, Sign. = 0.039, with no cells with an E.F. of less than five

[44] Chi square = 7.997, d.f.=2, Sign. = 0.018, with no cells with an E.F. of less than five

[45] Chi square = 15.431, d.f.=3, Sign. = 0.001, with one cell with an E.F. of less than five (12.5%)

[46] Chi square = 4.324, d.f.=1, Sign.=0.038, with no cells with an E.F. of less than five

[47] Chi square = 6.543, d.f.=1, Sign.=0.011 with no cells with an E.F. of less than five

[48] Chi square = 7.176, d.f.=2, Sign.=0.028, with no cells with an E.F. of less than five

[49] Chi square = 21.538, d.f.=2, Sign.=<0.001 with no cells with an E.F. of less than five

[50] Chi square = 9.187, d.f.=1, Sign.=0.002, with no cells with an E.F. of less than five

[51] Chi square = 15.252, d.f.=2, Sign.=<0.001 with no cells with an E.F. of less than five

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Chi square = 3.793, d.f.=1, Sign.=0.051, with no cells with an E.F. of less than five
Chi square = 4.406, d.f.=1, Sign.=0.036, with no cells with an E.F. of less than five
Chi square = 11.936, d.f.=2, Sign.=0.003, with no cells with an E.F. of less than five
Chi square = 7.898, d.f.=2, Sign.=0.019 with no cells with an E.F. of less than five
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Chi square = 4.159, d.f.=1, Sign.=0.041, with no cells with an E.F. of less than five
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Chi square = 8.427, d.f.=1, Sign.= 0.004, with no cells with an E.F. of less than five
Chi square = 8.697, d.f.=2, Sign.= 0.013, with no cells with an E.F. of less than five
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Chi square = 8.217, d.f.=1, Sign.=0.004 with no cells with an E.F. of less than five
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Chi square = 5.473, d.f.=1, Sign.=0.019, with no cells with an E.F. of less than five
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Chi square = 5.815, d.f.=2, Sign.= 0.055, with no cells with an E.F. of less than five
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Chi square = 13.478, d.f.=2, Sign.= 0.001, with no cells with an E.F. of less than five
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Chi square = 10.316, d.f.=1, Sign.=0.001 with no cells with an E.F. of less than five
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Chi square = 13.161, d.f.=2, Sign.=<0.001, with no cells with an E.F. of less than five
Chi square = 13.396, d.f.=1, Sign.=<0.001 with no cells with an E.F. of less than five
Chi square = 8.229, d.f.=2, Sign.=0.016, with no cells with an E.F. of less than five
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Chi square = 6.535, d.f.=1, Sign.=0.011, with no cells with an E.F. of less than five
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Chi square = 9.218, d.f.=1, Sign.=0.002 with no cells with an E.F. of less than five
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Chi square = 6.003, d.f.=4, Sign.=0.050 with no cells with an E.F. of less than five
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Chi square = 9.295, d.f.=2, Sign.= 0.010, with no cells with an E.F. of less than five
Chi square = 6.087, d.f.=2, Sign.=0.048 with no cells with an E.F. of less than five
Chi square = 3.571, d.f.=1, Sign.=0.059, with no cells with an E.F. of less than five
Chi square = 7.143, d.f.=2, Sign.=0.028, with no cells with an E.F. of less than five
Chi square = 10.520, d.f.=2, Sign.= 0.005, with no cells with an E.F. of less than five
Chi square = 9.730, d.f.=3, Sign.= 0.021, with no cells with an E.F. of less than five
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Chi square = 11.790, d.f.=2, Sign.=0.003, with no cells with an E.F. of less than five
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Chi square = 4.278, d.f.=1, Sign.=0.039 with one cell with an E.F. of less than five (25%)
Chi square = 18.976, d.f.=2, Sign.=<0.001, with no cells with an E.F. of less than five
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Chi square = 8.538, d.f.=2, Sign.=0.014, with no cells with an E.F. of less than five
Chi square = 12.157, d.f.=4, Sign.=0.016, with one cell with an E.F. of less than five (11.1%)
Chi square = 8.765, d.f.=2, Sign.=0.012, with no cells with an E.F. of less than five
Chi square = 8.364, d.f.=2, Sign.= 0.015, with no cells with an E.F. of less than five
Chi square = 5.318, d.f.=2, Sign.= 0.070, with no cells with an E.F. of less than five
Chi square = 11.246, d.f.=4, Sign.=0.024 with no cells with an E.F. of less than five
Chi square = 10.338, d.f.=4, Sign.=0.035, with no cells with an E.F. of less than five
Chi square = 10.538, d.f.=2, Sign.=0.005, with no cells with an E.F. of less than five
Chi square = 7.490, d.f.=4, Sign.=0.112, with no cells with an E.F. of less than five
Chi square = 4.752, d.f.=2, Sign.=0.093, with no cells with an E.F. of less than five
Chi square = 9.739, d.f.=2, Sign.=0.008 with no cells with an E.F. of less than five
Chi square = 15.449, d.f.=4, Sign.=0.004, with one cell with an E.F. of less than five (11.1%)
Chi square = 10.987, d.f.=4, Sign.= 0.027. However, two cells had an E.F. of less than five (22%).
Chi square = 21.373, d.f.=4, Sign.=<0.001, with no cells with an E.F. of less than five