

Tackling food poverty: The role and importance of food education in United Kingdom schools.

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ABSTRACT

This paper explores the role of food education in helping tackling food poverty in United Kingdom (UK) schools. Currently, more children in the United Kingdom are experiencing food poverty, impacted by the Covid pandemic and the rising cost of living crisis. Food poverty can have a significant impact on social mobility, educational attainment, and long-term health issues.

This paper discusses and reflects on how food education in schools can help tackle food poverty through Design and Technology (D&T) and the concept of designing and making with food. This is because, it includes the development of knowledge, understanding and skills involved in the practical preparation of food, alongside the application of investigative and experimental activities. It is important to understand that food education in the classroom is much broader than just 'teaching children how to cook.'

When children are handling food, they need to know and understand how, why, and what they are doing. This includes the development and creative design of food products and the knowledge related to food preparation, nutrition together with an understanding of the reasons underlying the specific choices of ingredient and food in their diet.

In the classroom children need to be exposed to a curriculum and pedagogy that provides a pathway into their future lives as healthy adults in a multicultural world, considering issues such as where foods come from, food availability, the environment and sustainability. Food provides a pathway and progression for children into a career in the hospitality and food industry, teaching and activities that require an understanding of the issues and basic scientific and technological principles involved in food preparation and its relationship with a healthy body. The many food-related courses availability in further and higher education will further broaden and expand this knowledge and understanding necessary for working in the 21st Century food industry.

Key Words (food poverty, children, food education, D&T, schools, curriculum)

1. INTRODUCTION.

The initial idea for authoring this paper came from the chapter Food Poverty and how it affects United Kingdom (UK) children in the long term. (Seabrook, Rutland, 2003) in the book Food Futures in Education and Society (Sing Lalli, Turner, Rutland, 2024). It explored and evaluated the fact that more children in the United Kingdom (UK) are experiencing food poverty. Past UK government approaches to food poverty, up to and including the impact of the Covid pandemic and current cost of living crisis were reviewed. It concluded that food poverty can have a significant impact on social mobility, educational attainment, and long-term health issues,

It was argued that food poverty means that children have access to lower quality and a restricted range of foods and often go hungry, with their only access to food via free school meals (FSM) vouchers. Teachers regularly report that pupils are fatigued, have poor concentration and are regularly ill, due to poor nutrition and hunger. Children who get FSM are less likely to get A* - C grade at General Certificate of Secondary Education (GCSE) than wealthier peers (Children's Society, 2022). Food security on the other hand is where an individual is considered food secure when they can access sufficient, safe, and nutritious food always to maintain an active and healthy lifestyle. (Food and Agriculture Organisation (FAO), 2006).

This thinking highlights the importance of food education in schools in that it helps create communities and social cohesion and the benefits go way beyond its nutritional value as is brings people together, combats poor mental health, fights loneliness, and increases self-worth and esteem' (Fareshare, 2022). There has always been hunger and poverty in the world but as societies have grown and become prosperous, there is a perception that the majority live securely and have access to the basic necessities. Yet, millions of people are currently struggling to get by with the poorest of living standards. Around 14 million people are living in poverty in the UK; eight million are of working age, four million are children and two million are retired (Joseph Rowntree Foundation (JRF), 2020).

In the State of Hunger Report (The Trussell Trust, 2021) it was found that those people more susceptible to food insecurity were higher in lower income households, the unemployed, younger age groups, single parents, social housing renters and those with disabilities or ill health. This situation is not improving as shown by more recent figures. Between 1 April 2022 and 31 March 2023, food banks in The Trussell Trust's (2023) UK wide network distributed close to 3 million emergency food parcels to people facing hardship and this is an increase of 37% from the same period last year. More than one million of these parcels were distributed for children.

This paper considers the role and importance of food education in UK schools, an issue that can be traced back to the 1840s when basic training in cooking and domestic economy was introduced to prepare girls for low paid employment and domestic life (Rutland and Owen-Jackson, 2015). The reasons underlying current concerns over food education in schools were, as in the 1840s social and political and relate to the health of the nation (Geen et al., 1988: 8).

So why are the issues of food poverty and food education so relevant and important in schools today? The cost of living has been rising in the UK and across the world. Food and energy prices have been rising markedly over 2022-2023, particularly gas prices, in response to the conflict in

Ukraine and global recovery from the coronavirus (COVID-19) pandemic. Food education in schools has a significant role to play in addressing these issues for our children today and in their future lives.

In the UK, the price of consumer goods and services rose at the fastest rate in four decades in the year up to October 2022. The annual inflation rate dropped slightly from 9.2% to 8.9% between February and March 2023 but was still high compared with recent years. The prices of food and non-alcoholic drinks rose at the fastest rate in more than 45 years in the 12 months to March 2023. Cucumbers (up 52%), olive oil (up 49%) and hard cheese (up 44%) but was still high compared with recent years. The largest contributor to the rise in food inflation was bread and cereals, for which the average prices rose by 19.4% in the year to March 2023 (Office for National Statistics, 2023).

2. METHODOLOGY

This paper adopts a qualitative approach, based on desktop research and empirical research with observations drawn from experience rather than from theory or belief. It considers and takes note of historical, socio-economic, political, educational, and contemporary issues of child food poverty in the United Kingdom. The literature is drawn from journal articles, report findings and expert opinion from charitable bodies, who collectively work in unison to address child food poverty and the inevitable health inequalities that need to be corrected.

3. DISCUSSION

In many countries, with increasing concerns over health, food education sometimes known as *food literacy*, or understanding the impact of your food choices on your health, environment, and economy – and that these impacts are not experienced equitably (Food Literacy Center, 2023) has become an important part of pupils' education. Aspects of food education such as nutrition may also be taught in science, physical education or personal, social, health and economic education (PSHEE) as well as currently in England within Design and Technology.

However, food education has overall a wide remit; in schools there is a need for a robust, theoretical framing, e.g., socio-cultural; scientific theory (food science); technological understanding, environmental issues, product design, nutritional knowledge and cooking skills that is taught in an experimental, sequential, and integrated approach.

Overall, pupils' practical capability in food preparation and understanding is enriched if they also develop technical knowledge and skills related to nutrition, food science and food product development, as well as decision making, analytic and evaluative skills. Food education, as found in Design and Technology in England provides pathways and progression through the school curriculum and beyond, into tertiary and higher education, research, the food industry, and other food related employment. (Rutland, Turner, 2021).

3.1. The impact of heavily processed foods on our diet.

It is important to appreciate, that not all children today will learn how to cook in the home, though this may have been true in the past and still will be the case in some countries. Due to changes in lifestyle and roles many societies have seen a reduction in the time spent preparing food in the home. The food industry is an increasing powerful and prosperous sector across the world, and people increasingly rely on heavily processed, factory produced food products that are easy to buy, store and quick to prepare. These foods take less preparation time, are less nutritious due to the increased use of food additives, though relatively inexpensive against using fresh ingredients.

As a nation 50% of UK household food purchases are ultra-processed (UPF). The food industry is responsible for producing highly refined, cheap foods and this has a significant impact on our diets as many of these foods contain additives, preservatives, and antifungal agents to extend the shelf-life. These foods can be separated into four categories depending on how much they have been processed during their production: unprocessed or minimal processed; processed culinary ingredients, processed foods and UPFs. Unprocessed foods include fruit, vegetables, eggs, meat and grains, UPF typically have five or more ingredients and contain industrial substances such as preservatives, emulsifiers, sweeteners, and artificial colours and flavours. Examples of ultra-processed foods include ice cream, ham, sausages, crisps, mass-produced bread, breakfast cereals, biscuits, carbonated drinks, fruit-flavoured yogurts, instant soups, and some alcoholic drinks including whisky, gin, and rum (BHF 2023).

Two landmark studies have recently revealed that ultra-processed food significantly increases the risk of high blood pressure, heart attacks and strokes. Even “healthy” processed options, such as protein bars, breakfast cereals, low-fat yoghurts and supermarket sliced bread are linked to worse heart health. The findings presented at the European Society of Cardiology Congress (2023) in Amsterdam, call for ultra-processed food to be treated like tobacco and say regulations must be in place to restrict advertising and the sale of such products.

In addition, it is currently projected by 2035 there will be more spent on Type 2 Diabetes than we are currently spending on all cancer treatments. However, some mandatory interventions have had important levels of impact, over a brief period. In an independent review by the government, the National Food Strategy, (DEFRA, 2021), the UK’s soft drinks industry levy (Institute for Government, 2023) has led to a 29% reduction in the average sugar content of soft drinks within three years.

3.2. The importance of food education.

There are countries and populations, such as the UK where people rely on *food banks* and other charity-based organisations to feed their families.

These issues highlight that good food education in the classroom is particularly important, but that it will be dependent on the local environment and the expectations and requirements of a society, the culture of the area surrounding the school and the people that live there. All these aspects need to be considered when planning children’s food education in the classroom and are essential to prepare and education them for their future lives.

Food education in the classroom is much broader than just ‘teaching children how to cook.’ When they are handling food, they need to know and understand how, why, and what they are doing. Food education includes the designing and making of creative food products, combining all the skills and knowledge related to food preparation and nutrition and not just based on following a recipe. It would be unwise to leave this to out-of-school clubs or side-line it into less important and less valued elements of the school curriculum.

In the classroom children need to be exposed to a curriculum and pedagogy that provides a pathway into their future lives as healthy adults in a multicultural world, considering issues such as where foods come from, food availability, the environment and sustainability. Food education lessons in schools provide a pathway and progression for children who want to follow a career in the hospitality and food industry, teaching and a range of other careers and activities that require an understanding of the issues involved in food and its relationship to a healthy body. The many food-related courses in further and higher education will broaden and expand the basic scientific and technological aspects of food taught in schools. Food education in schools should ensure that children are fully prepared and informed for their future, healthy lives in the 21st century.

3.3. Key issues in food education and a way forward.

Since the late 1990s there have been some fundamental changes to the teaching of the subject of D&T overall, but more significantly in respect of the teaching of food and the methodology used in the teaching of the subject. Initially, there was a compulsion for every pupil in England to sit a Technology subject at GCSE and food technology was an extremely popular choice, although more so by girls than boys (Owen-Jackson 2013 p106). Provision included GCSE Food Technology for pupils aged 16 and Advanced (A) Level Food Technology for pupils aged 18. These overall provided a pathway into higher education for pupils interested in following food related courses and the food industry and they remained in place until 2016/2017.

The introduction of a new National Curriculum for D&T meant that all GCSE and A Level D&T subjects (DfE, 2014) were reformed and it was decided to develop a combined GCSE Cooking and Nutrition, with a name change later to GCSE Food Preparation and Nutrition (DfE, 2015). The new qualifications focused on ensuring students acquire a good understanding of food and nutrition together with excellent cooking skills (ibid: pp. 6-7). A new Food Technology A level course, providing a pathway for pupils aged 18 years and progression to higher education courses, was not developed for schools as it was considered that there was several high quality vocational qualifications such as confectionary and butchery available (DfEa, 2014).

Further influences and changes since then have includes Academies (groups of schools) adopting their own food education curricula, new food teaching standards for both primary and secondary, the commission of the *FELL Report* (Oliver, 2017), the *National Food Strategy* (DEFRA, 2021), the governments *School Food Standards Guide* (DfE, 2023) and more recently the *Food Education: fit for the Future* by the Food Teachers Centre (Davies, Ballam, 2023). Despite all these pupils still seem to have limited practical cooking opportunities and there is little focus on pupils’ values, aspirations, and motivation to make healthy food choices. (Oliver, 2017)

In reality, pupils study ‘core’ academic subjects and are now given far fewer options of other GCSE level courses. All the remaining creative subjects are together in one or two option blocks, allowing little choice for pupils (Turner, 2017). It was suggested that the likelihood of this move was that the arts, technology, physical education, and religious studies would be lost to accommodate compulsory history and geography (SSAT, 2015). The government’s ambition appears to see 90% of GCSE pupils choosing the EBacc subject combination by 2025 (DFE, 2019) and this will surely have a further on ongoing impact for the uptake of D&T, including food in the coming years.

If we look at the national figures for Food Technology GCSE entries since 2013 – 2017 (DATA, 2017), we can see that there was a steady decline in the number of uptakes of the subject area from 44,642 in 2013 to 29,773 in 2017. This is a percentage drop of 33.31%, which is alarming to say the least.

The Food Teachers Centre Report (Davies, Ballam, 2023) noted that only 23% of those respondents (teachers) offering any Post 16 vocational courses and out of 306 responses 93% felt there was not sufficient post 16 level choices available. Some of the options available include WJEC level 3 Food Science and Nutrition (being the most available) but others include Hospitality, Leith’s Professional Cookery Level 3, International Baccalaureate (IB) Food Science and Technology and Business & Technology Education Council (BTEC) Home Cooking Skills. The outcome of any future review should include more practical based, comprehensive, and more academically recognised options for pupils at a post 16 level.

An additional impact on food teaching includes the time allocation for lessons. *‘When lessons are only fifty-five minutes long, there is little time for practical of any great skill, importance and scientifically nutritionally sound’* (Teacher D, Seabrook, 2018a).

‘In my first school food teaching reduced to one hour per week. This was then reduced to fifty minutes, a nightmare for food teaching’ (Seabrook, 2018b)

Results from a National Questionnaire (Seabrook, 2018a) indicated responses of 22% saying that their school no longer had food in the curriculum at all, which is a disappointing statistic. The reasons pertaining to this were the lack of facilities, resources, and schools’ inability to find well trained food specialist teachers coming through into education. The total number of D&T Early Career Teachers in England is up slightly from 334 in 2021/22 to 450 in 22/23. However, this is against a target of 1,825, which is only 25%, and this figure includes all D&T, Food and Engineering courses. This indicates not only how few D&T teachers were recruited, but more importantly how few were food specialists. There are no breakdown figures available from the Initial Teacher Training Census 22/23 (DfE, 2023).

4. CONCLUSIONS AND RECOMMENDATIONS.

Today school food education is varied in both quality and quantity and depends, on how important schools’ Senior Leadership Teams view it. The *Report of the Food Education Learning Landscape* by the Jamie Oliver Foundation (Oliver, 2017) noted many concerns. These included

that pupil's knowledge of healthy eating was incomplete, the delivery of all aspects of food education was patchy and many children were unable to develop their cooking skills. There was also limited evidence of pupils being taught how to apply the principles of a healthy diet in their food choices. Teachers are often held back by a lack of time, resources, and facilities with insufficient professional development to improve these skills.

There is further evidence from the Report (DATA, 2017 p44) that for curriculum-based food education to have a maximum impact; it needs embedding within the wider school food culture. Although many schools adopt a whole school approach to food education and there is support provided by a positive food culture and environment, this unfortunately is not the norm in all schools. Schools need to prioritise food education and provide robust continuing professional development (CPD) for teachers, to enhance their knowledge and understanding about topics such as food poverty and security, production methods and sustainability.

There is an urgent need to revise the current GCSE Food and Nutrition examination to enable the development of an A Level examination in food that will provide progression to further and high education food related courses. Such courses will provide suitably skilled and qualified people able to enter the food industry to ensure the qualities required in food products to ensure health and protection against the development of food poverty in our children and the future population. The development of food within the Design and Technology curriculum in England across the full age range of 11-18 years can ensure this will happen. It will not only develop children's 'cooking skills', but it will have a much wider impact on developing important food related knowledge, understanding and skills required for our children's future health and their ability to follow a wide range of food related career opportunities.

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