

## Book Review

# Food Education and Food Technology in School Curricula: International Perspectives

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### Introduction

This publication is part of a series of books that look at contemporary Issues in Technology Education. It describes up to date research concerning food education and food technology in an easily accessible format.

International and UK contributors from a variety of backgrounds and contexts, provide a diversity of perspectives on food education both teaching and learning in differing contexts. e.g., primary, secondary, and vocational school education, undergraduate initial teacher education programs, and in-service professional development. Consequentially it presents a variety of teaching, learning and curriculum design approaches relating to food. It offers an insight into some of the diverse issues in food education internationally, lessons to be learned from successes and failure and includes some action points to address issues highlighted in the chapter.

The book was composed for researchers, teacher trainers, trainees', curriculum developers, CPD providers, and teachers in primary and secondary schools.

### Structure of the book

The book is carefully structured to make it easy to access the knowledge, experiences and perceptions presented by the valued contributors whose biographies are included in the publication. The structure enables researchers to access the information they require without wasting time reading articles that are of no relevance.

A well written forward, stressing the importance of food education by Stephanie Valentine sets scene for the book. (Former/Retired Deputy Director General of the British Nutrition Foundation). The forward outlines the history, the importance of food education to the health of our nation, as well as the opportunities for careers such as Nutritionist, Dietitian. Stephanie mentions the need for a high-quality food education, delivered by trained and experienced food teachers in all contexts.

Stephanie ends with this comment about the book.

*'There is much for teacher educators, providers of in-service professional development, and external examination developers to reflect upon and some inspirational new ideas to*

*“share.” Reflection is a valuable learning experience, whereas complacency is not. So, where should we be heading in the next few decades? Clearly one size does not fit all. Thought provoking!*

Following the forward, are the biographies of the contributors. The contributors are knowledgeable authors involved in higher education or teachers working at the chalk face in schools in the UK as well as other countries. This background information creates confidence in the authors contributions.

The book is divided into three parts:

- Part 1: Food Teaching in Primary and Secondary Schools in Different Cultures.
- Part 2. The Professional Identity of Food Teachers
- Part 3. Current Content and Contemporary Issues

Every section of the book is made up of chapters. Chapters are all presented with an abstract, key words and a conclusion. There are copious references after each chapter allowing researchers to follow up topics that interest them. Data from relevant research is presented in a format that allows the reader to see where the knowledge and conclusions have come from. Some data is experiential and anecdotal. However much of the data has been collected from primary research techniques. The relevant data has been well-presented using appropriate methods e.g., charts, and diagrams This format makes chapters effortlessly available to all users.

The introduction, chapter 1, is written by Marion Rutland and Angela Turner. It outlines the content of each chapter within each part of the book. This information allows the reader to focus on the chapter(s) that are relevant to their needs. In addition, there is a summary of each chapter at the end of the book. A useful summary of the key points that have been raised throughout the publication can be found at the end of the book

### **Part 1: Food Teaching in Primary and Secondary Schools in Different Cultures**

This section comprises of seven chapters which explore a range of curriculum approaches in primary and secondary food education in England, Ireland New Zealand, Australia, and Malta. Some continents are not represented e.g., America, Asia. The international articles have been written by contacts of the authors.

#### **Chapter 2 Exploring Food education in the English Primary Curriculum by Sue Miles-Pearson**

This chapter looks at the developments that have occurred in food education in primary schools from 2009 -2018. Due to the demands on the curriculum time of literacy and numeracy the chapter highlights that food education has changed from teaching basic practical food skills to extracurricular activities such as after school clubs and growing fruit and veg in school.

Considerable primary research is recorded in the form of tables which provides clear evidence of what is being taught currently in primary schools in England

**Chapter 3 Reducing Challenging Behaviour and Maintaining Aboriginal and Torres Strait Islander (ATSI) and Non-ATSI Student Retention Through Food and Exercise in Primary and Secondary Schools in New South Wales, Australia by Gillian Stuart and Angela Turner**

This chapter reflects on the personal experiences of the author. The research projects and initiatives that she was involved in. It includes looking at aboriginal and non aboriginal cultures and cross-cultural teaching and learning contexts in primary schools in New South Wales, Australia

The chapter is exemplified with images and diagrams. It illustrates an interpretation of food education which reflects cultural influences, and argues that 'enriched learning environment supported through physical activities and food applications are the most salient influences on intellectual learning outcomes'. Finally, the impact of these projects having a lasting impact 'well beyond the school gate'.

**Chapter 4 What Is the Current State of Play for Food Education in English Secondary Schools? by Ruth Seabrook and Vanessa Grafham**

The evidence for this chapter has been collated from case studies from a range of Food teachers in English secondary schools. The chapter discusses the unprecedented changes to the national curriculum for design and technology and food technology. However, whilst there are many students aged between 14-16 years studying food. It is disappointing that the subject lost the 16-18 years examination which provided progression into higher education. This situation is seen by the author to be 'a major issue that needs addressing'.

**Chapter 5: A Technological Approach to Secondary Food Education in New Zealand by Wendy Slatter**

The chapter examines secondary food education in New Zealand. Food education is delivered via two areas of the curriculum., 'The Health and Physical Education Curriculum' and 'Technology Curriculum'. Food education is not just about teaching cooking skills but considers the links to health and fitness. The chapter offers thoughts about where food is or should be positioned in the curriculum. It defines some new terms 'technological food literate' and food literate. The chapter offers a well-balanced argument as to which curriculum area food education is best placed.

An academic chapter on what food components can be taught to 12-14 years old students in New Zealand. There are several diagrams which consider the content of the different interpretations of food education.

**Chapter 6: Developments in Secondary Food Education in England Since the 1970s: A Personal Perspective by Angela J. Turner**

An historical account of Angela's Turners perspective on food education. She takes us through the developments of food education from the 1970's to the present day in the UK. Angela sees that food is naturally part of our culture. She states that food should be 'high profile and valued for its contributions to a healthy society' she asks if we 'still have issues to address in secondary schools in England'. She describes her interpretation of what a good food education will look like. and provides very useful information for curriculum developers to consider.

**Chapter 7: Food and Nutrition Education in Malta: A Journey Across Time and Subject Boundaries by Suzanne Piscopo**

Here current food education in Malta is described in detail. Malta has a home economics approach to food education. Suzanne sees future development in food education revolving around the Mediterranean diet. She sees 'the goal is the enhancement of wellbeing and quality of life of Maltese food consumers and producers'.

**Chapter 8: Home Economics Education in Secondary School Settings: Lessons from Education Policy on the Island of Ireland by Amanda McCloat and Martin Caraher**

A comparative case study approach is used in this chapter. Food education (Home Economics) is a compulsory subject in Northern Ireland. With policy to have food education compulsory in The Republic of Ireland. Home Economics in the Island of Ireland is 'A holistic, multifaceted and comprehensive food education .... aiming 'to develop a sustainable healthy approach to, and relationship with food'. Scientific theory and its relationship to practical food preparation delivers a positive relationship with food.

The chapter looks at the teaching and learning approaches to Home Economics in both Northern Ireland and The Republic of Ireland. It highlights the similarities and the differences in the pedagogy between the two countries. The content of Home Economics in both countries covers practical skills, and the applications of scientific and theoretical knowledge, which is delivered in an experiential sequential and integrated approach developing a positive relationship with food. Plenty of research has been referenced and makes for an informative chapter.

**Part 2. The Professional Identity of Food Teachers**

This part will look at the influences in schools, higher education, initial teacher education, continuing professional development (CPD) and vocational programmes on the identity of food teachers in different countries, contexts, and cultures. Many of these six chapters relate to food education in Australia

**Chapter 9: Positive Ingredients to Redefine Food Education in Schools in New South Wales, Australia by Donna Owen**

This chapter looks at the idea that food education in Australia is taught according to the teachers interprets the curriculum. It reflects on the same content being delivered generation after generation. Donna accepts there are critical life skills that need to be taught, but she states that students need to be exposed to current issues and problems relating to food security and sustainability.

Twenty food teachers were surveyed to see what key factors influenced the development of food education. The result being that teachers need to be flexible and open to curriculum changes, they need to develop their own professional knowledge through professional learning.

Teachers' personal development should be reflected in the curriculum delivered, ensuring that food education is both current and relevant, equipping students to take employment in the food industries. A chapter that uses primary research to develop a reflective review on the food curriculum in Australia.

**Chapter 10: Where Will Future Secondary Food Teachers Come from in England? by Sue Woods-Griffiths and Suzanne Lawson**

Sue and Suzanne talk about the status of food education in schools. They state that food lacks academic credibility. This is an issue as food education doesn't meet the needs of the food industry. The consequences of the removal of the 'A' level means there are few routes to university degree courses. The status of food in English schools is described in a clear way.

**Chapter 11: Changing the Professional Identity of Food Technology Teachers in New South Wales, Australia by Deborah Trevallion**

This chapter reflects on many case studies about people in New South Wales who select a second career in teaching food and apply to complete an Initial Teacher Education Degree. They come to the degree with a wide variety of life experiences and skills and values that are associated with their previous employment.

Many trainees tussle with learning knowledge relevant to teaching. They struggle with establishing their identity as a food teacher. The chapter explains how important it is that universities take on board the tensions and resistance of trainees to the changes in the field of education. Universities need to develop a willingness and an acceptance to promote the new curriculum and ways to deliver it throughout the coursework. Several diagrams and chart help to support the point raised with in the chapter. The chapter reflects on the new developments in the food technology curriculum and the changes that potential food teachers must follow to keep the subject up to date.

A complex set of issues are presented here with extensive relevant references.

**Chapter 12: Qualifications for Working in the Food Industry: Understanding All the Available Options for Students and Educators in Victoria, Australia by Bronwyn Graham**

Food education in secondary schools in Victoria, Australia has in recently undergone change. The role of the food technology teacher is explored. The content of the of the food syllabus and how it is taught is studied. With many opportunities to gain employment in the food industries in Australia, this chapter explores the many routes to careers within food industries. It recognises that the food teacher is the person students turn to for advice of a future career path that involves food.

The chapter contains detailed information on the qualifications that are on offer in Victoria. It presents detailed and specific information on qualifications that are available. It uncovers the wide variety of routes/ qualification to get access to employment in the food industries. This information would be helpful to policy makers. References are mostly from online sources.

**Chapter 13: Continuing Professional Development for Secondary Food Technology Teachers in New South Wales (NSW), Australia by Carly Saunders**

*'The New South Wales Education Standards Authority (NESA) mandated that all teachers must accrue professional development hours to maintain teacher accreditation. NESA Registered Professional Development can only be delivered by Endorsed Providers who have completed a rigorous assessment and approval process.'* (p. 196)

Two hundred and forty one Australian teachers took part in a qualitative research survey that looked at what professional development courses would help teachers to keep up to date and teach food technology to learners of the future. 'The practical, hands-on, recipe testing, cooking on a budget, cooking to an hour time' courses received the most votes.

There are references to applicable organisations and articles, which help to substantiate the information presented. There are several quotes from the survey responses, which provides evidence to endorse the research. The findings from the research survey discloses information which could be of value to curriculum developers and trainers in other nations.

#### **Chapter 14: Food Education in Upper Secondary English Schools: Progression into Food-Related Undergraduate Courses in Higher Education by Marion Rutland**

Initially the chapter outlines in detail the historical development of food education in the UK. There are many references to government documents which helps to confirm the trustworthiness of the information presented.

In 2013 Food was retained within the Design and Technology curriculum, considering food to be a material area. 'ingredients' being the material area. A separate section 'Cooking and Nutrition' was produced, where students were to learn to cook as it was a 'life skill'. In 2014 the GCSE Food Preparation and Nutrition was born and the new A level in Food Technology course was dropped. It was assumed that GCSE Food Prep and Nutrition would suit hospitality and catering route to employment but there was no consideration to the more academic areas of employment such as Dietician Nutritionist.

Statistics from the Food and Drink Federation, employing 400,000 people illustrate need for food teaching to cover all aspects of food, i.e. food science and technology social, political, and economic issues to provide a route into food related employment. The question posed was whether the current Food Preparation and Nutrition GCSE provides progression to food industry and food related undergraduate course in higher education. The informative chart included in the chapter, stresses that the only university that refers to food technology A level for admission requirements for an undergraduate food related degree is Leeds University

A well written chapter supported with endorsed research that highlights the need to reinstate the A level in food education to provide a suitable progression on to the more academic route of employment such as dieticians and nutritionists.

#### **Part 3. Current Content and Contemporary Issues.**

This part of six chapters explores current curriculum approaches to food education i.e., teaching of practical food skills, food technology, nutrition and health and global food supplies, in the United Kingdom, New Zealand, and ethnic cultures in South Africa and Australia.

#### **Chapter 15: Current Research in Nutrition in the School Curriculum in England by Sue Reeves**

In England Food and nutrition are delivered in several curriculum areas. Young children should be taught about food and nutrition at a young age. New research on gut microbiome in health and disease as well as global food security should be included in the food curriculum. This information will provide students with the knowledge and understanding to make informed choice about the food they eat.

*'Public health nutrition has never been more important, with increases in the rates of obesity, cardiovascular disease, and diabetes. Nutrition and food education can help contribute to public health policies for tackling diet-related disease'. (p. 235)*

*'Nutrition is a scientific subject, and rigorous methods are used for research investigations in this area. It could be argued that nutrition is a relatively new science'. (p. 234)*

The chapter uses an objective and impartial tone and examines copious references that endorse the need to include nutritional knowledge and current research within a food curriculum.

### **Chapter 16 A Curriculum Developer's Perspective on the Place of Food in the Secondary School in England by David Barlex**

The author looks at the importance of food education from the perspective of the government, who consider the impact on the nation's health, obesity.

The elements of the chapter, The Importance of Food Education, Other Approaches to Health Eating, Teaching Young People to Cook and Eat Well, The Role of Science Understanding in Learning How to Cook and Eat Well, and The Possible Content of Food Technology Courses are logically linked and identified with headings.

The concise, straightforward language used in the chapter presents many questions which implores the readers to review and reflect the points raised by the author. A chapter that spotlights issues that the future curriculum developers should be aware of.

References confirming the source of the knowledge and understanding are within the chapter.

### **Chapter 17: Population Growth and Global Food Supplies by Christopher Ritson**

Christopher conveys that there is considerable evidence suggesting that higher food prices has developed from the in balance of food supplies and global demand. The Reverend Thomas Malthus a political economist from the 19th Century thought that food supplies would not grow at the same rate as the population. Consequently, there would be deficit in global food supply. In principle the supply and demand of food can be reversible with changes in the patterns of eating, less meat, and less waste, combined with technological developments which will increase the supply of food. The issues raised here about sustainable consumption of food will provide a wealth of information on which to discuss and debate the sustainability of food production and consumption.

The reference list is short containing publications from the 19th century as well as recent publications from the 21st Century. The chapter raises issues that we need to be aware of when considering the content of future food technology /education globally in the 21st Century.

**Chapter 18: Socially Acute Questions: How Biotechnology Can Provide Context and Content for Discussion in Food Technology Education by Bev France**

Socially Acute Questions (SAQ's) surrounding Biotechnology or biologically engineering - genetically modified food are raised throughout this chapter. The pedagogy around the risks of consuming genetically modified foods, are considered.

The history around bio engineered food, initially developed to relieve the world hunger issues. It is coherently structured through the chronological developments of genetically modified foods to the ethical discussions that need to be included in food education. The chapter consider the risks connect to human health of these foods and advocates that discussion is needed so consumers make informed decisions on the food they consumer.

The chapter is clearly written and presented with exemplars throughout enabling the reader to understand key information and the issues surrounding genetically produced foods. A great source of secure information relating to biogenetically produced foods. An Interesting chapter that discusses ways to teach students both the advantages and disadvantages of bio genetically processed foods.

**Chapter 19: Teaching Food Technology in a Secondary Technology Education Classroom: Exploring Ideas in Indigenous Contexts by Mishack T. Gumbo**

The chapter references Sub-Saharan Africa and states there is much knowledge about the properties of plants, handed down from the elders to the younger generations. Health protecting and health promoting compounds are held in local plants which are used in the production of foods. It looks at the natural ways that native people preserve and prepare foods which are central to their culture. These natural or low technological ways to harvest and process and consume foods present a less threat to the human body with reference to 'disease and conditions such as 'diabetes, hypertension, cholesterol and obesity'. Native people have a lot of knowledge to teach the more industrialised countries and that this is an area that should be included in food technology education. The suggestion is that, in the future low tech food preservation techniques need to be combined with high tech food preservation i.e. a dual method to preserve food.

A superb chapter for discussion about the links between food harvesting processing and consuming and the health of a nation. There is an excellent chart of the natural ways that foods are process in other countries.

A comprehensive set of references which lists pages from books as well as from an unpublished dissertation, provides evidence on the validity of the content. A curious and thought-provoking chapter on the content of future food education curriculums.

**Chapter 20 Learning Cultural, Ecological and Food Literacies Through the Gumbaynggirr Pathway of Knowledge Project by Angela Turner**

The primary school in question is situated in Gumbaynggirr 'on the land of the people of the Gumbaynggirr nation and positioned on the last five acres of natural habitat in the immediate locality that contains much valuable flora and fauna habitat'.

The head teacher at the primary school liaised with Southern Cross University to work through a project whereby the aboriginal culture the knowledge i.e., of the locality native plants cooking

methods and recipes are introduced to five teachers in one a primary school. Over 10 weeks teachers were taught by aboriginal elders about the aboriginal culture. A questionnaire collected responses from the 5 teachers who are at differing stages of their careers. The results: - 'teachers came to recognise the significance and pride in developing connections with local Aboriginal people and knowledge and how this can inform their teaching'.

A well referenced chapter which suggests that native cultures should be included into food technology/ education in the future. The chapter provides limited evidence to support this suggestion.

### **Chapter 21 A Synoptic view of sections 1.2.&3 by Marion Rutland and Angela Turner**

Chapter 21 gives a summary of the book chapter by chapter. There is some repetition from the introduction chapter. However, it is a very helpful addition to the book as it contains a summary of the points raised throughout the book. This information is presented as bullet points making it easy for the readers to focus on the key points raised throughout the book. Researchers can backtrack and find the chapter(s) which pose the key issues raised. Many of these key issues, in my opinion, are very relevant.

### **My Observations**

The book is claiming to be useful to,

*"teachers in post, teacher trainers, pre-service teachers, curriculum developers, Continuing Professional Development (CPD) providers, educational researchers and educational policy makers" (p. 1).*

However the book's specialist content and the price, makes the publication, in my opinion one that will be largely purchased by higher education establishments and keen researchers. Researchers wanting to explore food education in its many interpretations across some international countries as well as the UK, will find this book a very sound, and a very reliable source of information. A unique selling point is that chapters can be purchased online direct from the publisher, so researchers or interested readers need only to purchase chapters that are relevant to their research/ interests.

Many of the key summary points need to be accessible to educational policy makers.

*"Reading is important, because if you can read, you can learn anything about everything and everything about anything." (Tomie dePaola)*

This book supports learning everything about anything about the many issues around food education in the UK, New Zealand, Australia, and South Africa, from the past to the future.

### **References**

dePaola, T., <https://www.goodreads.com/quotes/tag/gaining-knowledge> accessed 24th October 2021