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An International Review of Second-level Food Education Curriculum Policy

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Abstract

Schools have been identified as an effective setting for promoting healthy behaviour in young people with numerous calls for a comprehensive curriculum of food education to be taught in schools. This paper uses a comparative case study of second-level food education curriculum policy across seven countries. It explores the varying curriculum policy regarding the status of food education; the pedagogical basis and philosophical underpinning of the curriculum and the status of the profession of teachers who teach food education and Home Economics. The results show that with the exception of England, Home Economics is regarded as the subject best placed to teach food education to second-level students. Coherence in the discourse used around food education in the subject Home Economics is evident; however, disparity between countries exists as to whether or not the subject is an optional or mandatory subject on the curriculum, often influenced by the availability of the specialist Home Economics teachers.

Key words

Food education

Curriculum

Home Economics

Food literacy

Cooking skills

1. Introduction

Internationally, there is concern about the individual and population health consequences of unhealthy dietary behaviours (World Health Organisation (2016). The World Health Organization (2017) identifies schools as an efficient and effective setting to promote healthy behaviour to children and young people as habits and behaviours developed at an early age can influence lifestyle choices in adulthood. The EU Action Plan on Childhood Obesity (2014-2020) recognises the benefit of an integrated approach to teaching children about food. The Plan recommends that children should be educated about nutrition, healthy lifestyle, sustainability issues, along with practical food skills in an integrated manner which utilises the existing curriculum as opposed to piecemeal additional components (EU, 2014). Providing cooking skills initiatives, in isolation of any other approach, will not alone solve poor eating habits or obesity (Seeley, Wu and Caraher, 2010). A comprehensive approach to address knowledge, attitudes, confidence and practical food and cooking skills is required in order to have a meaningful influence on dietary quality (McGowan et al, 2017).

In recent years there has been a renewed interest in food education and in particular, the concept of food literacy (Vidgen and Gallegos, 2014). In the informal setting, learning from the mother was most commonly cited as the source of learning food and cooking skills; however, due to a perceived decline in home cooks this may pose a challenge for the future transfer of food knowledge and skills (Lavelle et al., 2016). Traditionally, formal food education was the remit of Home Economics teachers in schools. Home Economics was regarded as the subject responsible to educate students on food knowledge, skills, attitudes and competencies required for life (Pendergast, 2012).

The International Federation for Home Economics (IFHE) states Home Economics, “as a curriculum area, facilitates students to discover and further develop their own resources and capabilities to be used in their personal life, by directing their professional decisions and actions or preparing them for life” (IFHE, 2008, p.1). Although the benefits of a comprehensive curriculum such as Home Economics in educating young people in basic lifeskills such as preparing food for themselves and their families is internationally recognised (Lichenstein and Ludwig, 2010; McCloat & Caraher, 2017; Ronto et al., 2016; Worsley et al. 2015); there remains a perceived variance in the provision of food education in second-level curriculum policy in schools internationally. At the time of writing this paper, there appears to be no current comparative studies analysing food education curriculum policy on an international basis. Therefore, this paper uses a comparative case study approach in analysing second-level food education curriculum policy across seven countries: Republic of Ireland; Northern Ireland; England; Malta; Japan; Finland; and Australia (State of Victoria). It explores the education policy regarding the status of food education on the curriculum; the pedagogical basis and philosophical underpinning of the curriculum and the status of the profession of teachers who teach food education and Home Economics.

2. Methodology

This study is a cross national, comparative case study of food education curriculum policy in secondary schools across seven countries: Republic of Ireland; Northern Ireland; England; Malta; Japan; Finland; and Australia (State of Victoria). Comparative case study research can provide a useful example of what occurs in other countries; however, it is accepted that the findings from these seven case studies cannot be utilised to generalise to other cases rather this study compares these cases for what they show (Thomas, 2016).

Non-probability sampling was employed and the countries were selected based on their suitability to one of four criteria **which were identified in order to explore varying perspectives on food education curriculum policy**. The four criteria included: 1) an established policy for providing mandatory food education on the curriculum (Japan, Finland); 2) a relatively recent change in policy to have mandatory food education (Northern Ireland); 3) an established policy but optional food education on the curriculum (Ireland; Malta; Australia (State of Victoria)); or 4) an ad hoc, piecemeal approach to food education (England). The State of Victoria, in Australia, was included as it adapts an innovative way of training Home Economics teachers as it has a large Home Economics Association who are directly involved in training Home Economics teachers (Home Economics Victoria, see <https://www.homeeconomics.com.au/>) for schools.

Despite policy documents often representing an incomplete or apparent account of the reality on the ground, they still have value and are regarded as “deliberate and conscious statements of strategies” (Shaw, Elston and Abbott, 2004, p.261). Initially, curriculum policy documents were collected into a database and analysed in each of the seven country case studies. According to Collins (2005), a distinction needs to be applied when conducting policy analysis between analysis of policy process and that of policy content. For the purposes of this paper food education curriculum policy analysis of the content is undertaken. This comparative policy analysis involved analysing secondary school curriculum policy at junior cycle (ages 12-15) pertaining to food education and Home Economics. In each of the countries education policy documents were analysed which were produced by comparable sources such as national education departments, ministries with specific responsibility for curriculum and assessment and subject associations. This facilitated a quicker and easier sourcing of document and a comparable process focusing only on food education policy. The education policies were sourced through the websites of each of the aforementioned organisations. For all countries where English is not the official language, an English translation of the policy document was available. In one country (Japan) the Japanese Home Economics Association published the Home Economics curriculum in a book and consequently, this was used during the analysis together with some English translations of wider education policy documents. The education policy chosen for analysis in each country was the most current national policy at junior secondary school and included: Republic of Ireland Junior Cycle Home Economics Specification (2017); Northern Ireland Home Economics: Food and Nutrition (2017); Cooking and Nutrition component of Design and Technology (2013) and License to Cook initiative in England; Home Economics curriculum (2012) in Malta; Course of Study for Home Economics (2008) in Japan; revised Home Economics curriculum (2014) in Finland.

In analysing the policy documents in the respective countries the initial stage involved using a data collection sheet. This recorded in a systematic, coherent and comparable way, data (i.e. curriculum description; structure; rationale; aim; learning outcomes and assessment) from the food education/Home Economics curriculum policy of each country. Subsequently, the data was analysed and the following comparable themes were extracted from the policy documents: nomenclature used in the policy to refer to Home Economics and food education; status of the subject on the curriculum (optional or mandatory); rationale and aim of the curriculum; pedagogical emphasis (theoretical and/or practical, experiential); curriculum content and assessment and teacher education. Only formal education and curriculum policy at junior cycle in post primary schools (ages

12-15) has been included in this review. The authors recognise the myriad of cooking and food education initiatives that are run by charities and non-government organisations outside of the formal school setting; however, due to word constraints these have not been explored within the scope of this paper. These are in many instances not covered by the terms of official curriculum documents which relate to learning in schools for syllabus purposes?

3. An International Review

2.1 Republic of Ireland (ROI)

The name 'Home Economics' is used throughout curriculum policy documents in secondary schools and in teacher education in the Republic of Ireland. Home Economics is a popular subject with students and in 2016; it was taken by 36% (n=22,257) of the total cohort of students (n=61,654) sitting the Junior Certificate examination taken at 15 (State Examinations Commission, 2017). Junior Cycle education (ages 12-15) in the ROI is undergoing a process of curriculum policy change as set out in the new Junior Cycle Framework (2015). Consequently, a new Specification for Junior Cycle Home Economics (2017) will be implemented in all schools from September 2018 comprising a three year course of study, designed for a minimum of 200 hours timetabled student engagement. According to the Department of Education and Skills (DES) (2017) the central focus of Home Economics, as a field of study, is to achieve optimal, healthy and sustainable living for individuals, families and society. The new Specification for Junior Cycle Home Economics aims to "develop students' practical food and health literacy skills so that they are enabled to adopt a healthy lifestyle and make informed decisions that positively impact their health and wellbeing as individuals as well as within their families and society" (DES, 2017, pg. 5).

The new Specification comprises three strands: Food, Health and Culinary Skills; Responsible Family Living and Textiles and Craft. The strand Food, Health and Culinary Skills focuses on developing a "healthy, sustainable attitude and positive relationship with food through practical experiential learning" (DES, 2017, p.15). Students are required to apply their knowledge and understanding of nutrition, diet and health principles to make informed decisions which will positively impact their health and wellbeing as well as their families. Practical food and cookery skills are integral to the strand and cover broad range of skills including food choice; budgeting; shopping; menu and meal planning for individuals and families at all stages of the lifecycle; diet related diseases and specific diet disorders; nutritional analysis; portion control; importance of nutrition and diet in contributing to health and wellbeing; comparing commercial and homemade food products; scientific principles and biological systems including digestion; reading food labels; health and safety food skills; preparing and cooking a range of food using various cooking techniques; ethical and ecological food principles; food waste etc. At the end of the three years of study, students will be expected to have developed a broad range of knowledge, understanding, practical skills which relate to food health and culinary skills including e.g. apply a range of cooking principles and techniques in the preparation of healthy individual and family meals incorporating budgetary considerations; using a problem-based learning approach, apply nutritional knowledge in the planning and preparation of food for the family etc. (ibid, p.15). The strand is underpinned by four elements which have a focus on Health and Wellbeing; Individual and Family Empowerment; Sustainable and Responsible Living; Consumer Competence and all nineteen learning outcomes in this strand are arranged according to their relevance of each of these four elements.

In recognition of the importance of the practical food skills underpinning the specification there is 50% of the externally assessed marks weighted towards a practical food skills examination which is externally assessed by the State Examinations Commission. The practical food skills examination will require students to demonstrate the application of nutritional knowledge and their food literacy skills in the preparation of a healthy nutritious dish or product to meet the requirements of a specific brief which may refer, for example, to healthy family meals; special dietary considerations; healthy school lunches; stages of the lifecycle; resourceful cookery; diet related diseases etc. (DES, 2017).

2.2 Northern Ireland

Despite being on the island of Ireland, Northern Ireland is governed separately from the Republic of Ireland. The policy on curriculum for schools is set out by the Department for Education, Northern Ireland (DENI) but developed by the Council for Curriculum, Examinations and Assessment (CCEA). The Northern Ireland Curriculum aims to “seek to empower pupils to achieve their potential and to make informed and responsible decisions throughout their lives. It is about helping pupils prepare for life and work as individuals ...” (CCEA, 2007, pg. 2). In 2007, following curriculum policy change in Northern Ireland, Home Economics became a mandatory requirement for all students (male and females) up to Key Stage 3 level (age 11-15 years) within the learning area: Learning for Life and Work. This signalled a change in the status of Home Economics in Northern Ireland with related negative implications for the teaching and resourcing of the subject (Caraher and Seeley, 2010).

Some ten years on from it achieving mandatory status, in September 2017 a revised specification in Home Economics: Food and Nutrition commenced with a guided learning hour allocation of 120 hours. The specification has two components: Food and Nutrition; and Practical Food and Nutrition. It aims to develop students’ knowledge and understanding of Home Economics: Food and Nutrition; their application of food and nutrition to everyday living situations; high level practical food skills; their knowledge and understanding of human needs within the context of a multicultural society; their critical and analytical problem solving, decision making and consumer discernment skills (CCEA, 2016). The integrated and practical nature of Home Economics on the Northern Ireland curriculum, according to Baird (2010), enables students to develop a broad range of skills in an explicit and structured manner.

The Food and Nutrition component of the specification comprises content areas including food provenance; processing and production; factors affecting food choice; food and nutrition for good health; nutritional and dietary needs of different groups of people; macro and micro nutrients; fibre; health issues; consumer discernment; food safety; resource management; recipe modification and food preparation, cooking and presentation skills. This component is weighted at 50% of the assessment and total mark allocation for the subject (CCEA, 2016). The Practical Food and Nutrition component of the specification equates to the other 50% of the total marks and relates to a practical task that “develops unique transferable skills” (pg. 15). The practical task involves the students researching and investigating a given task title; choosing and justifying their practical activity; completing the practical activity which involves preparing three dishes plus accompaniments in a practical session and then evaluating all parts of the task (CCEA, 2016).

2.3 England

Food education and cooking skills have no statutory place on the curriculum of secondary schools in England. The License to Cook programme (introduced in 2011) is an entitlement for students and the subject Design and Technology is an optional subject in secondary schools (revised in 2011). Concerns were raised by Ofsted in 2006 in an inspection report on Food Technology which noted tension, confusion and weaknesses in the curriculum and a “fundamental clash, on the one hand, between teaching about healthy eating and how to cook accordingly and, on the other hand, developing food products to be marketed to meet consumer needs” (pg. 6). According to Rutland (2017) “learning how to cook can contribute to a healthy lifestyle, while food technology involves studying food as an academic subject” (p.7). Consequently, teaching young people essential lifeskills of food and cooking skills has, arguably, been in a state of disarray for some years in England.

Subsequent policy developments in England resulted in the Government announcing that cooking would be a ‘compulsory’ component on the curriculum by 2011 for all 11 to 14 year olds as a response to the increasing prevalence of obesity in the UK (HM Government, 2008). This led to the development of the *License to Cook* programme which is an entitlement for all students attending maintained secondary schools in England. Whilst it is not a statutory requirement, all of these schools must provide access to the programme if their students request it. Rutland (2017) notes that the intention of this initiative was to integrate it into the food technology curriculum. The programme is based on a minimum entitlement of sixteen hours practical cooking session; three hours of theory and five hours of online tutorials. It focuses on four competencies including Diet and Nutrition; Food Safety and Hygiene; Consumer Awareness and Basic Cooking Skills and aims to teach students how to prepare simple, healthy and nutritious meals, consumer discernment and food safety and hygiene skills (Rutland, 2008). However, in the absence of the availability of a trained cohort of Home Economics teachers this programme is delivered by non-specialists, often non-qualified teachers, who have undertaken short upskilling courses with only one-day training provided to teachers to learn how to deliver the cookery sessions and the online tutorials.

Concurrent to this, policy change also occurred in the curriculum (2013) and resulted in a revised National Curriculum ‘Cooking and Nutrition’ optional component offered through the subject Design and Technology. The component Cooking and Nutrition aims to teach students how to cook and apply the principles of nutrition and healthy eating whilst instilling a love of cooking. The descriptor refers to cooking as “a crucial lifeskill that enables pupils to feed themselves and others affordably and well, now and in later life” (Department for Education, 2013, pg4). At Key Stage 3 (11-14 years) students are taught how to prepare savoury dishes to feed themselves; the principles of nutrition and health; recipe modification; advanced cookery techniques including the use of electrical appliances; appreciation of sensory attributes of food; and food provenance and seasonality (Department for Education, 2013). However, food teachers and food teacher educators expressed concern during consultations on the new curriculum and noted that as the new subject was essentially combining three pre-existing subjects it had breadth but lacked depth. Consequently, it was argued there was too much of an emphasis on teaching lifeskills, practical food skills and cooking at the expense of scientific and technological understanding (Rutland, 2017).

2.4 Malta

Since the beginning of the 20th century Home Economics has been offered on the Maltese curriculum and is an examinable subject for secondary students since 1910. Similar to Ireland the discipline has gone through various name changes including Domestic Economy, Housecraft, Domestic Science and now Home Economics. In the mid and late 20th century, Home Economics was compulsory subjects for girls in the first two years of secondary schooling. However, a new National Curriculum Framework (NCF) was endorsed in 2012 and within this Framework Home Economics is an optional subject in the secondary year's cycle (Piscopo and Mugliett, 2014). The subject is a popular choice with a very high proportion of both male and female students of the Form 1 cohort choosing to study Home Economics (Piscopo, 2006).

Home Economics education in Malta, similar to other countries, from a food education perspective, aims to enable students to “foster an understanding of relevant scientific principles in nutrition and health; and promote a balanced, critical approach to food choice and eating habits and develop skills relating to the choice, preparation and presentation of food” (Directorate for Quality and Standards in Education, 2012, pg. 9). The socio-ecological model which acknowledges the relationship between the individual and society is integral to Home Economics curriculum in Malta. There are four key guiding principles for Home Economics which include: connectedness whereby students explore their interaction and connection with their environment in order to promote, support and sustain the health and well-being of individuals, families and society; problem-solving skills to become critical reflective thinkers; sustainability to develop as advocates for sustainable future; and advocacy to enhance the health and well-being of individuals, families and society (Ministry of Education and Employment, 2014).

Home Economics education in Malta is underpinned by three strands of continuous learning: Strand 1: Food, Nutrition & Health which is further subdivided into 4 learning areas or sub-strands: Food, Health & Energy Balance; Sustainable Resource Management; Safety & Risk Management and Practical Interventions. Strand 2: Home & Family Well-Being; and Strand 3: Choice & Management of Resources. The Home Economics curriculum is a unitised curriculum which aims to achieve a balance between the breadth of content and the available time for students learning. The revised curriculum in 2012 resulted in a reduction of content in curriculum subjects. Each of the units in the curriculum have a specific set of teaching objectives and learning outcomes which can be reasonably achieved within the identified time for that unit (Directorate for Quality and Standards in Education, 2012).

According to the Directorate for Quality and Standards in Education (2012), the pedagogical approach for teaching and learning in Home Economics is “a nurturing of skills that develop an inquiring mind” (pg.10). The practical nature of the subject is reinforced throughout the Teaching Objectives Framework and the Subject Learning Outcomes (SLOs) for Home Economics with an emphasis placed on experiential learning through a design brief process.

2.5 Japan

Home Economics (Kateika) education in Japan enjoys an established and reputable place on the curriculum in both elementary (primary) and high school (secondary) education. It has been a required subject in elementary school for grades five and six for Japanese boys and girls since 1947. According to Kawamura (2016) Kateika is based on an established pedagogical approach and places a strong emphasis on developing life skills and problem solving. The subject aims to develop independent students in their daily lives with a focus on developing competencies including cooking by themselves for themselves. This has been the approach for some time by teachers of Home Economics.

In 2005 the Basic Law of Shokuiku was enacted which targets all citizens of Japan. The law defines “Shokuiku” as food education to acquire “knowledge about food and the ability to make appropriate food choices” (Reiher, 2012, pg. 509). It positions food education at the core of society and offers a holistic approach to the integration of food education throughout the family, school and community. Home Economics as a mandatory school subject is one mechanism through which the principles of the law can be achieved.

The Course of Study includes family and family life; daily meals and basics in cooking; comfortable clothing and housing; daily consumer issues and the environment (Arai, 2012). The Aims of the Course of Study includes reference to enabling students to “acquire basic and fundamental knowledge and skills necessary for everyday life through practical and hands-on activities relating to food ... and to develop a positive attitude towards a better family life as a member of the family” (MEXT, 2008, pg. 2). With specific reference to the component ‘daily meals and basics in cooking’, students receive instruction on nutrition; balanced meals and healthy eating; meal enjoyment; menu planning; specific cooking techniques including boiling, stir-frying, rice cooking, making miso soup; serving meals and safety in the kitchen (MEXT, 2008).

In junior high school (grades seven and eight ages 13 and 14??? Or 12 and 13?), Home Economics is a required, co-educational subject since 1989. Prior to this the subject was called Home Economics and Technology and whilst the subject was centred around three practical skills (designing, building and operating) the content was differentiated for either boys or girls whereby boys studied carpentry, machinery etc. and girls studied cooking, childrearing etc. Consequently, there was no formal opportunity for males to learn food literacy skills. In 1989 the Course of Study was revised to minimise gender segregation; however, given the influences on gender stereotyping in society the content continued to be differentiated based on gender. It was not until 1998, in light of growing societal criticism of gender discrimination in school curricula, that the Course of Study was amended to ensure learning outcomes were combined and would subsequently be studied by both boys and girls in grades seven and eight. This resulted in boys as well as girls studying cooking, food, diet and nutrition, meal planning, independent living. According to Kudo (2016) a consequence of this change was assisting men to acquire lifelong practical lifeskills. The course of study in junior high school focuses on family, home and child growth; food, cooking and independent life; daily consumption and the environment; and clothing, housing and independent life. In order to develop their food literacy competencies students, receive instruction pertaining to diet and nutrition; preparation and cooking of daily meals; local food culture; menu planning; food quality; safe and hygienic preparation of food; consumer discernment; and sustainable consumption (Arai, 2012).

2.6 Finland

The Finish National Board of Education has responsibility for setting the core curriculum in schools in Finland. The core curriculum in Finland was revised in 2014 and replaced the 2004 core curriculum. Implementation of the 2014 curriculum is under way with Grade 7 commencing the new curriculum in August 2017.

Similar to other countries in this study, food education and cooking skills are taught in Finland through the subject Home Economics which is a mandatory core subject at grades 7 (age 13?) and an optional, albeit popular, area of study at grades 8 and 9. At grade 7 there is a strong emphasis on developing practical skills and each student is taught three hours per week of Home Economics, comprised practical instruction and theoretical input depending on the topic. The teaching and learning in Home Economics equips students with the essential lifeskills for “sustainable living, food knowledge and skills as well as consumer skills” (Finish National Board of Education, 2016, pg.470).

At grades 7-9 there are three content areas which relate to the objectives of Home Economics with an emphasis on students applying what they learn in class to their everyday living situations. The three content areas include C1 Food Knowledge and skills and food culture; C2 Housing and living together; and C3 Consumer and financial skills at home. Of particular interest to this paper is content area one Food knowledge and skills and food culture. Home Economics objectives include a focus on developing practical skills that encourages students to use materials, utensils, appliances to promote well-being and sustainable consumption. The C1 content area includes a focus on food preparation and baking skills; meal planning; considering food choices and habits; nutrition and healthy eating; food safety; food chain; food knowledge and skills; ethical considerations of food; economical use of food; food culture and customs (Finish National Board of Education, 2016). For the first time in September 2016, as a result of policy change in the 2014 curriculum, Home Economics can now also be taught as an optional subject at primary school level (grades 1-6). The content areas are as set out in the National Core Curriculum for Basic Education (2014) but are taught in a way that is developmentally appropriate for the children of this age group and involve developing children’s knowledge, skills and understanding of Home Economics related areas including food and nutrition. Work has also been conducted to align and integrate Home Economics knowledge in cross curricular themes to have a positive impact on the health and wellbeing of students e.g. school lunches (Turkki, 2015).

2.7 Australia – State of Victoria

In the State of Victoria junior secondary school level curriculum there are two learning areas which are concerned with food education. These include Home Economics and Food and Nutrition whereby content for each of these areas is drawn from two curricula: Design and Technologies and Health and Physical Education. Home Economics is concerned with the practical concerns of individuals, families and communities. One element of this is food education which relates to food, nutrition, healthy food choices, influences on human growth and development; and wellbeing. In the Food and Nutrition area students are provided with the opportunity to learn knowledge and skills associated with food including nutrition principles; food origins; food production; healthy eating; food choices; technology related food issues such as food processing and packaging. They are

provided with the opportunity to apply this knowledge in the selection and preparation of food in hands on practical cookery sessions (Victorian Curriculum & Assessment Authority, 2017).

In senior secondary school, Victoria a new curriculum commenced in schools in 2017. The Victorian Certificate of Education (VCE) Food Studies (2017 – 2021) replaces the previous curriculum Food and Technology. VCE Food Studies aims to develop students who can make informed food choices as capable food citizens; apply the principles of nutrition, food science; take ownership of their food decisions; conscious of the environmental, ethical and economic dimensions of food. Practical food skills are integral to the curriculum and include the planning, preparing, evaluation and enjoyment of food (Victorian Curriculum & Assessment Authority, 2016). There are four units of study: food origins; food makers; food in daily life and food issues, challenges and futures. Each of the units is based on fifty hours of scheduled classroom instruction. The new VCE Food Studies was developed following extensive consultation and has been broadly welcomed. According to Compton (2016) this curriculum takes an interdisciplinary approach to food studies and has an emphasis on developing a pathway for students to health and wellbeing through the theoretical and practical application of food skills.

INSERT SUMMARY TABLE

Country	Nomenclature around Food Education used in curriculum policy documents	Optional / Mandatory	Aim / Rationale – Discourse u
Republic of Ireland	Home Economics	Optional for all students	Healthy, sustainable living fo practical food and health lite make informed decisions tha and wellbeing
Northern Ireland	Home Economics: Food and Nutrition	Mandatory to Key Stage 3 (age 11-15); optional thereafter	Application of food and nut practical food skills; proble consumer discernment skills human needs
England	Design and Technology: Cooking and Nutrition License to Cook	Optional 24 hours to be made available to all students	Cook and apply the principl feed themselves and others at Diet and nutrition; food safet basic cooking skills
Malta	Home Economics	Optional for all students	Understand relevant scientifi balanced, critical approach to skills for choice, preparation a
Japan	Home Economics	Mandatory for all students in Junior (age 11-15) secondary school;	Practical, hands-on activities r for everyday life; better family

		optional thereafter	
Finland	Home Economics	Mandatory at Grade 7 (aged 13-14) and optional thereafter	Essential lifeskills for sustai consumer skills; promote well
Australia (State of Victoria)	2 Learning Areas: Home Economics; Food and Nutrition	Optional	Make informed food choi principles of nutrition, fo environmental and economic

Table 1: Summary Table

4. Discussion

It is apparent in the curriculum policy for all of the countries in this study, with the exception of England, that Home Economics has been tasked as the subject on the curriculum to teach food education to secondary school students. However, between countries it is also apparent that variations occur in the policy regarding whether food education is mandatory for all students or an optional area of study; the pedagogical basis and philosophical underpinning of the curriculum; and the status of the profession of teachers who teach food education and Home Economics in each of these countries. **Exactly how this influences the nature, provision and quality of food education in second-level schools will now be considered.**

4.1 Nomenclature

Findings from this comparative analysis demonstrates that the nomenclature around food education and Home Economics utilised formally in the seven countries often varied between junior and senior high school curricula. The IFHE identify the name 'Home Economics' as the preferred name for the field and the profession. They note internationally the name has been retained and is recognised within and beyond the profession (IFHE, 2008). However, in reviewing the seven countries in this paper, the name Home Economics was used when referring to food education in curriculum policy in the Republic of Ireland; Finland; Japan; Northern Ireland; Malta; and Australia. However, nomenclature such as Food and Nutrition (Australia), Food Studies (Australia) was also evident in curriculum policy. However, in practice this can lead to dilution of the discipline from a philosophical perspective. Unfortunately, it can also lead to confusion and fragmentation of the mission of Home Economics, particularly when taught by non-specialist teachers. In countries such as Finland, Ireland, Northern Ireland, Malta and Japan there is a consistency of terminology with the use of the name Home Economics in secondary curriculum and University teacher education programmes. One might conclude that this can lead to Home Economics teachers having a strong sense of identity and belonging to the Home Economics discipline. Furthermore, it is interesting to note that Home Economists from countries such as Republic of Ireland; Japan; Malta; Finland; and Australia are active participants in the IFHE as an international professional association for the discipline (IFHE, 2018).

England was the only country reviewed where there was no reference to 'Home Economics' as a medium for teaching food education. According to Caraher and Seeley (2010) cooking, as a lifeskill, was no longer in favour by industry in England in the 1980/90s who instead preferred skills such as food product development; marketing; packaging; costing food products etc. This had significant and influential consequences on the curriculum policy of the time. Leith (1997) noted that a technological and industrial approach to teaching food in schools; a lack of qualified teachers; costs associated with the class; replacement of kitchens in schools with computer rooms or general facilities and the perceived lack of academic rigour associated with cooking resulted in the decline in schools offering 'Home Economics' in England.

4.2 Home Economics as the Vehicle for Food Education in Curriculum Policy

This paper demonstrates the focus and value countries such as Japan, Finland and Northern Ireland have on ensuring second-level students are taught food education lifeskills as part of their formal curriculum. In these three countries Home Economics is the vehicle for teaching food education. In Japan, from elementary to high school, Home Economics education is the mechanism for developing comprehensive, sustained, practical food and lifeskills in children and young people. From a policy perspective, Japan has invested in ensuring that mandatory Home Economics education, for both males and females, has an established place on the curriculum due to the importance it places on being able to have these essential food education lifeskills. Consequently, every student, regardless of gender, has an opportunity to study food education as a component of Home Economics with a focus on practical lifeskills of cooking and meal preparation. In Japan the status of the profession of a Home Economics teacher is well regarded and the subject in schools is taught by specialised, and university educated, Home Economics teachers who have a strong pedagogical basis and philosophical underpinning.

Similarly, in Finland, a consistently high performing education system ranking in the top five of OECD countries in PISA results (OECD, 2016), has ensured Home Economics is a mandatory subject for all young people and is a highly regarded practical lifeskills subject on the curriculum. From a Finnish perspective the main goal of Home Economics is to teach students practical and theoretical everyday lifeskills and competencies (Kuusisaari, 2013; Hokkanen and Kosonen, 2013) and an importance is placed on these on skills. Evidently, a key strength of the subject, from a food education perspective in Finland, is the developmental process students engage with in order to assist them to take responsibility for their health; develop a positive attitude towards health and well-being; increase knowledge and understanding of food, nutrition and health issues and introduce health promoting food habits. Likewise, in Northern Ireland, Home Economics: Food and Nutrition has a mandatory place on the curriculum and plays a pivotal role in educating young people on food, nutrition and practical cookery skills. Baird (2010) concludes this area of learning, which provides knowledge and understanding necessary to make healthy food choices, and the practical cookery skills to apply this knowledge, is one of the most important learning areas to our young people in the current era.

However, in contrast to countries such as Japan, Finland, Northern Ireland, Home Economics still remains an optional subject in curriculum policy in the Republic of Ireland despite a recognition of the contribution it makes to teaching food lifeskills. In a recent national consultation with young people, the subject was identified as an essential lifeskills subject where they stated that learning to prepare and cook food in Home Economics classes was regarded as one of the most useful things ever learned (DoCYA, 2014). There is no question as to regard its popularity with 36% of the total

cohort of Junior Cycle students studying the subject in the Republic of Ireland (SEC, 2017). Despite this, and numerous public calls in the media to make the subject mandatory (Hickey, 2018; Boland, 2017; Maguire, 2017; Sweeney, 2015; Gray, 2015; McCloat, 2012; 2013), it remains as an optional area of study on the new Junior Cycle Framework. A similar, but worse, situation exists in Australia where, although Home Economics is identified as the most “logical and favourable” place to teach comprehensive food literacy skills incorporating a theoretical and practical component there is a reported lack of status and value applied to Home Economics and food education programmes in Australian high schools (Ronto et al., 2016). Compounding this issue is the varying curriculum policies implemented across the States of Australia. The lack of value and status seems to remain in some States despite a recent nationwide study conducted by Worsley et al (2015) which showed that Home Economics (and similar) education was associated with higher levels of food knowledge among adults in Australia. The researchers stated there is substantial evidence which suggests that Home Economics education can have a long-lasting impact on the learning of food knowledge in adults but identified the negative impact of having different curricula across the states in Australia on food knowledge of the adults.

From the analysis it is evident that food education in England is in a state of disarray. Whilst the re-introduction of food and cooking skills on the curriculum in England is welcome, the auspices under which it is done needs to be carefully considered. The use of License to Cook initiative as a mechanism for teaching food education lacks a coherent pedagogical basis. In a recent evaluation of food educators in the UK (British Nutrition Foundation, 2017) it was reported by 44% of teachers that pupils receive 11-20 hours of food education per year at Key Stage 3; 13% receive 10 hours or less; 23% receive 21-30 hours and 20% receive 30 hours or more (p.3). ~~Parents, in the same study, identified the importance for all aspects of food education to be taught to pupils across secondary schools and in particular, 62% identified the teaching of practical cooking and food preparation skills and the application of learning about healthy eating and nutrition as being very important (Populus, 2017).~~ The introduction of piecemeal policy interventions in schools, such as Licence to Cook, that focuses not on the holistic development of food skills over a sustained period of time but rather aims to equip students with “essential lifeskills” in approximately twenty-four hours of input cannot be compared in terms of effectiveness to a subject with a sound pedagogical basis taught in a sequential, comprehensive manner over a period of three years by qualified teachers. Food education and cooking skills should form part of a comprehensive curriculum, similar to other countries in the study who have situated it within the subject Home Economics, which is sequentially planned in a developmentally appropriate manner and taught by expert teachers qualified in the pedagogy underpinning the discipline. Skills should be regarded as a priority for inclusion as essential lifeskills and taught regardless of their impact (Fordyce-Voorham, 2009).

It is evident from the analysis of the curriculum policy in all countries, with the exception of England, that Home Economics, as a vehicle for teaching food education has an underpinning pedagogical approach. This was explicitly stated in the curriculum policy documents analysed whereby a socio-ecological pedagogical approach, which acknowledges the relationship between the individual and society, is applied in the teaching and learning of food education in Home Economics. Practical experiential learning underpins this approach where the instruction is based on practical activity. Interestingly, across the curriculum policy analysed, a systemic approach is utilised in Home Economics which encourages students to address practical, perennial problems of individuals and families in a critical, thoughtful and socially responsible manner. Critical social theory is applied to the teaching and learning in Home Economics in order to develop reflective critical citizens in society who have an emancipatory approach to problem solving (Piscopo and Mugliett, 2014). Developing the Home Economics underpinning pedagogical knowledge, thinking and tools equips students with

the requisite skills to manage day-to-day life and the application of these skills in a variety of contexts where students are encouraged to take responsibility for their personal and family health, wellbeing and sustainable living (Turkki, 2015). It is interesting to note that Home Economics has a pedagogical practice history including practical problem solving and constructivist pedagogy that “transcend the transmissive, technical method and focuses on interpretive action and critical thinking” (Smith, 2016, p.10).

3.3 Teaching Profession

The evidence from each of these countries suggest a strong link between countries educating specialised Home Economics teachers and having a coherent and strong subject presence on the school curriculum. In all countries, with the exception of Australia, Home Economics teacher education is taught in a University. Finland, Ireland, Malta and Japan educate Home Economics teachers at both undergraduate and postgraduate university level. Two of these countries – Ireland and Finland have a concurrent/integrated Home Economics teacher education programme to Masters level. Additionally, Finland offers structured Ph.D. programme in Home Economics education. In practice this means that students, on completion of their secondary education, apply to enter a full time undergraduate teacher education degree in Home Economic and Education resulting in a Masters qualification. This is usually of five years’ duration and demand for these programmes far exceeds places. There is a strong degree of interlinking between Home Economics and pedagogical studies (Turkki, 2005). Consequently, students are dedicated and interested in becoming a Home Economics teacher from an early age and throughout the five years are provided with a strong pedagogical and philosophical basis in the discipline. According to Turkki (2005), students have an “excellent attitude towards their studies and to the field [Home Economics] as a whole” (p.280). In Malta and Japan, students study an undergraduate degree in Home Economics and then undertake a postgraduate teacher education programme in Home Economics education. This is referred to as a consecutive model of teacher education. Similarly, to Ireland and Finland students elect to study Home Economics as a discipline from an early age and have a strong philosophical and pedagogical understanding of the discipline. **Having a formal, clear university education route into the teaching profession has led to having specialised teachers who have a strong pedagogical and philosophical basis in the teaching of food education through Home Economics. it is evident that these countries are also those who have comprehensive second level food education curriculum policy, whether this is chicken or egg is not a question that can be answered by this research, but there appears to be a clear link. It is possible that the demands of a curriculum drives the training but it also equally conceivable that an existing strong professional group keeps alive the need for the subject as can be seen in the case of Ireland, Victoria and Japan?**

Australia and Northern Ireland, have no undergraduate degree in Home Economics. Cognate areas linked to Home Economics e.g. consumer studies; nutrition; food, health, culinary arts related courses are all accepted as entry to graduate teacher education programmes. In Victoria, Australia qualified teachers wishing to upskill to teach Home Economics can undertake a Graduate Diploma in Home Economics Education which is a two-year part time course offered by Home Economics Victoria (Home Economics Victoria, 2017). In Northern Ireland, students apply for a place on a Post

Graduate Certificate Education (PGCE) Home Economics offered by the University of Ulster. As students enter these postgraduate courses from a myriad of undergraduate degrees one might conclude that their philosophical understanding of the discipline can be limited. In England, reflecting the situation on the school curriculum, there is no undergraduate or postgraduate courses in Home Economics. However, in a recent survey 92% of food teachers in England agree that food education should be taught by specialist teachers in schools and they identified three key challenges to the teaching of food education in schools which included adequate time; budget and class size (British Nutrition Foundation, 2017). ??????

4 Conclusion

Internationally, there has been numerous calls for a comprehensive curriculum of food education to be taught in schools. Lichenstein and Ludwig (2010) state that an investment in food education and 'bringing back' Home Economics may be among the best investments that a society can make. This paper utilised a comparative case study approach to analyse second-level food education curriculum policy across seven countries: Republic of Ireland; Northern Ireland; England; Malta; Japan; Finland; and Australia (State of Victoria). It explored the varying curriculum policy regarding the status of food education on the curriculum; the pedagogical basis and philosophical underpinning of the curriculum and the status of the profession of teachers who teach food education and Home Economics. Analysis of the curriculum policy for almost all of the countries in this study illustrates that Home Economics is tasked as the subject on the curriculum to teach food education to second-level students. This analysis concludes that as a curriculum area, Home Economics, is a wide-ranging education programme which incorporates nutritional knowledge, scientific theory, practical culinary and food skills in a sequential and integrated manner. It maximises practical experiential learning for the student and teaches a sustainable healthy approach to, and relationship with, food

Home Economics, in teaching food education, is ideally placed to utilise its pedagogical approaches and philosophical underpinning of the curriculum to deliver a holistic and comprehensive approach to teaching young people about food.

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