



Victorian Journal of Home Economics

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Erratum

The article, Andrews, Dr F., 'Grandparents Who Provide Child Care: Maintaining Health and Life Balance, Victorian Journal of Home Economics, vol. 53, no. 2, 2014. inadvertently contained an error.

In the version of this article initially published, the name of the first author, Katherine Ware was incorrectly omitted. Home Economics Victoria sincerely apologises for this error. The corrected version of the journal was distributed to subscribers.

The correct authorship and citation is Ware, K. and Andrews, Dr F., 'Grandparents Who Provide Child Care: Maintaining Health and Life Balance, Victorian Journal of Home Economics, vol. 53, no. 2, 2014. It offered a unique insight into the experiences of contemporary families. Katherine explained her qualitative research findings about this pertinent family and societal issue.

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About Home Economics Victoria

Home Economics Victoria was established in 1958, as a professional association for teachers, and is the peak home economics organisation in the state of Victoria, Australia. The organisation supports educators in empowering young people to live sustainably and take responsibility for their own physical, mental and social wellbeing.

Opinions expressed in this journal are those of the contributors and do not necessarily represent the views of Home Economics Victoria.

At the time of writing, all internet addresses included in articles were correct. Owing to the dynamic nature of the internet, however, we cannot guarantee their continued validity.

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Cover image: Students model their upcycled clothing after participating in a workshop by Jane Milburn.

Foreword

Welcome to issue 1 of the 2015 Victorian Journal of Home Economics.

This issue contains topical articles of interest for home economics teachers and allied professionals that extend professional learning.

Home Economics Literacy is the theme for World Home Economics Day (held on 21 March each year) for 2015–2016. Professor Donna Pendergast depicts the Home Economics Literacy discourse in the Home Economics Literacy Model – HELM. Her paper draws upon the work of the IFHE Think Tank’s Position Paper on Home Economics. This topic was presented at the IFHE Annual Meetings, held in Malta in March this year. Expect to hear more about the development of this model.

Dr Jay Deagon writes a thoughtful and engaging methodology paper with the use of a colourful metaphor, “Through the eyes of a satin bowerbird”. Many will recognise the attributes of the bowerbird in conducting large and small research projects.

Healthy eating in adolescence is an important priority for sound general health. It is well understood by home economics and allied professionals. Research on the impact of healthy eating on adolescent mental health, is examined, by Sarah Dash, PhD candidate at Deakin University. Various research studies and the synthesis of the growing literature about the relationship between healthy diet and mental health of adolescents are discussed in Sarah’s article.

Caitlin Syrett, Community Education Services Coordinator, Nutrition Australia, led the re-design of Nutrition Australia’s Healthy Eating Pyramid, launched in May 2015. In her article, Caitlin describes the process and explains the rationale for the re-design of the Healthy Eating Pyramid. This highly recognised visual guide is a popular food selection model, used extensively by communities and school-based home economics classes.

Camperdown College Home Economics teacher, Julie McPhee writes a report about the opening of the teacher – and community – designed and built Food Technology Centre.

Upcycling clothing is a much-admired skill among secondary school students, young adults and families. Jane Milburn has undertaken research and consultancy work in secondary school textile classes promoting these design and production skills. Jane has written about her passion for sustainable practices in clothing and textiles comprised of natural fibres.

We welcome input from members. Please contact the editor if you have a topic or issue of interest to your colleagues.

Gail Boddy
Editor

HELM – Home Economics Literacy Model – A vision for the field

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Abstract

The 2015 theme for World Home Economics Day was 'Home Economics Literacy: Skills for families and consumers'. While explicitly connecting with global movements identifying 'literacy' and as an aspirational goal, the profession must consider what is meant by home economics literacy and what evidence is needed to ensure that professionals in the field are achieving a literate outcome. In this paper a deeper understanding of what home economics literacy might be is considered, and a model – the Home Economics Literacy Model (HELM), is presented. HELM is presented. The acronym connects with the notion of taking control at the helm, and the paper sets out an explanation for the need to link home economics literacy with best practice, thereby creating an evidence-base for the field.

Literacy

There is considerable focus on the types and definitions of 'literacy' and how this concept can be utilised in everyday life to develop, understand and apply to particular fields of study (Pendergast & Dewhurst, 2012). Indeed, home economics as a field of study is similarly exploring this concept, seeking to determine what it is that might be captured by the concept of 'home economics literacy'. In 2015 the theme for World Home Economics Day was Home Economics Literacy: Skills for families and consumers. The press release announcing the theme states that: [C]elebrating WHED 2015 provides an opportunity to communicate the importance of Home Economics Literacy, in promoting family and consumer wellbeing, throughout the world. The essential life skills offered by Home Economics education is transformative. Home Economics Literacy is the multidisciplinary expression of several literacies such as food literacy, health literacy, financial literacy, consumer literacy and environmental literacy" (The International Federation for Home Economics [IFHE], 2015:1). But what does this mean to everyday home economists?

As a valuable starting point, the United Nations Educational, Scientific and Cultural Organization (UNESCO) defines literacy as the ...

... ability to identify, understand, interpret, create, communicate, compute and use printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society (UNESCO, 2003, p. 13).

As the focus on literacy as a learning tool has progressed over recent decades, more expanded definitions have widened, as Smith (2009, p. 55) suggests "[G]eneral literacy has broadened to include negotiating, critical thinking and decision-making skills". There are many terms that have been added to the concept of literacy to apply it to fields. Examining the concept of health literacy for example, Nutbeam (2000) identified three progressive levels of health literacy: basic/functional, communicative/interactive and critical. Functional health literacy is the use of basic literacy skills to function successfully in everyday situations, while interactive health literacy expands these handling

information skills with social and personal skills applied to new and more complex situations. Critical health literacy as its name suggests, is the development of further cognitive skills for critical analysis, thus leading to self-efficacy and empowerment towards individual and collective actions. These aspects usefully classify health literacy in terms of what it enables individuals to do (Freebody & Luke, 1990) and how it can improve capacity for social action. Literacy is thus an enabler and a capacity.

Other examples abound, for instance in Australia in 2011 a national study by Australian food experts investigated the question – *What is food literacy and does it influence what we eat?* Conducted by Vidgen and Gallegos (2011, p.ii) using the Delphi method, the following definition was presented as the most acceptable one:

[T]he relative ability to basically understand the nature of food and how it is important to you, and how able you are to gain information about food, process it, analyse it, and act upon it.

In a literal sense the Oxford English Dictionary perhaps offers one of the simplest definitions of literacy, explaining it as "competence or knowledge in a specified area". However, the challenge is then to determine what constitutes 'competence', what constitutes 'knowledge' and what is the 'specified area'. It is to this task that this paper now turns, with a view to developing a model that can be utilised in the field.

Home economics literacy

Since the publication in the *Journal of the American Medical Association* of an article entitled *Bring home economics back* (Lichtenstein & Ludwig, 2010) there has been renewed interest and a renewed opportunity to focus on the benefits of home economics education and the contribution it makes to society. Data from around the world confirms that home economics has suffered a demise in terms of the availability of curriculum for formal education in schools and in tertiary institutions, with a trend towards a dispersal of the content across related fields, such as food science, family studies, textiles design, technology and public health (Pendergast, Garvis & Kanasa, 2013). Linked to this demise is the global trend to change the name of the subject and the field to what have been considered to be more contemporary titles that can address negative stereotypes associated with the name 'home economics' (Pendergast & McGregor, 2007). Examples of name changes to family and consumer science; and human ecology, are both now widely utilised in the United States in preference to home economics. The use of a range of names for the field has led to fragmentation of curriculum and an apparent demise, hence the need to "bring back" home economics (Pendergast, Garvis & Kanasa, 2013).

The public plea by Lichtenstein and Ludwig (2010) to "bring home economics back", coming from quarters that were unexpected at the time, points again to the need to privilege education which focuses on wellbeing and which develops not only knowledge, but the ability to apply this knowledge in practical ways. Change is often triggered by a spark, often from an

unexpected source. However, there remains a large degree of uncertainty about the value and potential contribution of home economics to the public health agenda for fighting obesity and the resulting medical impact that inspired this spark. This provides an opportunity for home economics professionals to shape the field and to position the profession appropriately for today's context (Pendergast, Garvis & Kanasa, 2013). So, what is home economics literacy – what is the 'knowledge' and what is the 'area'?

According to the *IFHE Position Statement – Home Economics in the 21st Century* (IFHE, 2008), home economics is a 'field of study and a profession, situated in the human sciences that draws from a range of disciplines to achieve optimal and sustainable living for individuals, families and communities' with content that 'draws from multiple disciplines, synthesizing these through interdisciplinary and transdisciplinary inquiry' (p. 1). Importantly, the Position Statement posits that home economics has four areas of practice:

- as an *academic discipline* to educate new scholars, to conduct research and to create new knowledge and ways of thinking for professionals and for society
- as an arena for *everyday living* in households, families and communities for developing human growth potential and human necessities or basic needs to be met
- as a *curriculum area* that 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

- as a *societal arena to influence and develop policy* to advocate for individuals, families and communities to achieve empowerment and wellbeing, to utilise transformative practices, and to facilitate sustainable futures

And three essential dimensions:

- a focus on fundamental needs and practical concerns of individuals and family in everyday life and their importance both at the individual and near community levels, and also at societal and global levels so that wellbeing can be enhanced in an ever changing and ever challenging environment;
- the integration of knowledge, processes and practical skills from multiple disciplines synthesised through interdisciplinary and transdisciplinary inquiry and pertinent paradigms, and
- demonstrated capacity to take critical/ transformative/ emancipatory action to enhance wellbeing and to advocate for individuals, families and communities at all levels and sectors of society

The Position Statement further explains that "[E]nsuring the interplay of these dimensions of Home Economics is the basis upon which the profession can be sustained into the future. Because of these attributes, Home Economics is distinctively positioned to collaborate with other professionals" (IFHE, 2008, p. 2). One way of looking at what would comprise the Essential Dimensions and the Areas of Practice is to consider these elements in the context of one aspect of home economics knowledge. An exemplar is presented in Table 1 for the topic of consumer studies.

HELM – Home Economics Literacy Model – A vision for the field

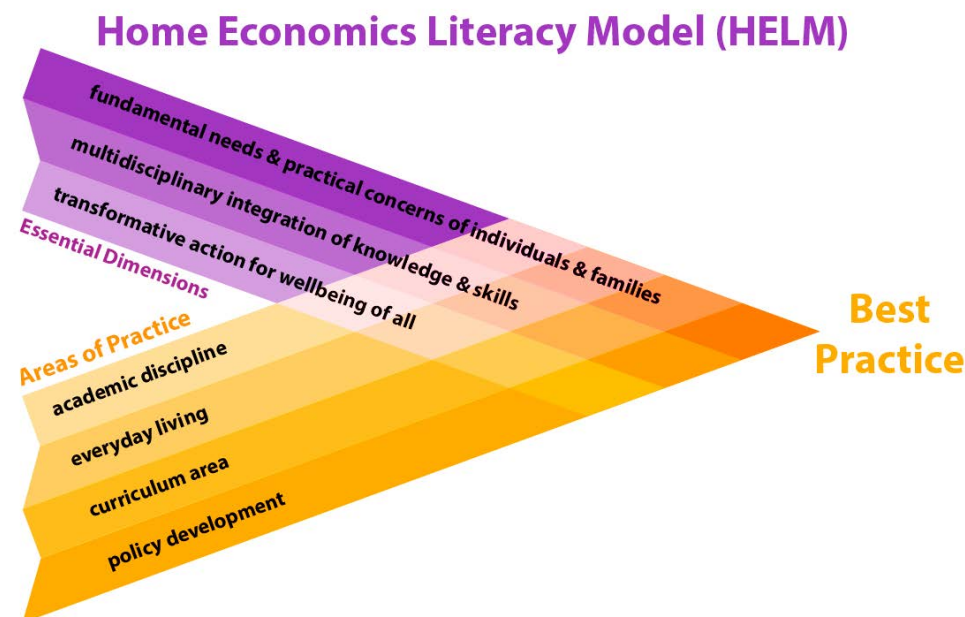
Table 1 Example of the Essential Dimensions and the Areas of Practice of Home Economics – Consumer studies

Consumer studies	Needs of individuals & families	Multidisciplinary integration	Transformative action
Academic Discipline	Identify gaps in food labelling research	Investigate, graphic design, nutrition knowledge, branding conventions	Propose new labelling conventions to meet the needs of food decision makers
Everyday Living	Selection of household products and services	Use scientific processes to analyse product service qualities	Empower individuals to make decisions about product and service selection
Curriculum Area	Identify consumer rights and responsibilities as a core learning area	Incorporate content from a range of knowledge bases (e.g. finance and budgeting)	Empower students to exercise their rights through a practical application
Society & Policy	Access consumer policy documents for individuals and families	Consider the breadth of policies related to consumer law	Provide advice as a consumer advocate on a government committee

The relationships between the four areas of practice and the three essential dimensions is the point where home economics practice occurs – that is, in an area and with all essential dimensions in play. It is indeed the case that the field draws from a range of discipline sources and these are

often contextually specific. This can be graphically presented, as shown in Figure 1. HELM – Home Economics Literacy Model. The interplay between the features presents as a kind of warp and weft that together form the pointy end of the field of study we know as home economics. What this point of

convergence represents is the presence of all four areas of practice through the three essential dimensions. Without each of these aspects present, it is argued that home economics literacy is not present. Furthermore, this point of convergence provides the space for best practice in the field.



Graphic Design: Joy Reynolds
 Pendergast, D. (2015). *Home economics Literacy: A vision for the field*. Keynote address presented at: Action for family and consumer well being - Home economics literacy bringing skills to life. University of Malta - IFHE Conference, March 19-21, Malta.

Figure 1. HELM – Home Economics Literacy Model

Best Practice and HELM

Home Economics Literacy brings together the features of Best Practice in Home Economics. The question is, where is the evidence of practice that brings together the Essential Dimensions in each of the Areas of Practice depicted in the model? In this way best practice represents the competence noted in the earlier definition of literacy. Without evidence, education cannot resolve competing approaches, generate cumulative knowledge, and avoid fads and personal biases. It is no accident that the acronym HELM is employed to represent Home Economics Literacy Model. In boating terms, the helm is

a ship's steering mechanism. This acronym can also be regarded as capturing the essence of the steering and future direction for the field of home economics.

Best Practice is an approach which asserts that there is a technique, method or process that is more effective at delivering a particular outcome than any other technique, method, process, etc. The idea is that with proper processes, checks and consideration, a desired outcome can be delivered with fewer problems and unforeseen complications. Hence Best Practice can be regarded as being

the most efficient and effective way of accomplishing a task, based on repeatable procedures that have proven themselves over time for large numbers of people. In an educational context, the term 'Best Practice' has been used to describe 'what works' for a particular situation or application. When data support the success of a practice, it is referred to as an **evidence-based practice**. According to Whitehurst (2015) there are nine elements that are required to build an evidence base and hence enable the capacity to claim Best Practice. These are presented in Table 2.

Table 2 Nine evidence-based practice elements for achieving Best Practice

9 elements required for best practice	Explanation
1. A clear and common focus	Clearly articulated and understood common goals. There is clear evidence of practices to support beliefs and these are shared in the profession
2. High standards and expectations	Students and professionals are engaged in an appropriately ambitious and rigorous course of study or work in which the high standards of performance are clear and consistent and the conditions for learning or action are modified and differentiated.
3. Strong leadership	Leadership is focused on enhancing the skills, knowledge, and motivation and creating a common culture of high expectations based on the use of skills and knowledge to improve performance. Leadership fosters a collaborative atmosphere while establishing positive systems to improve leadership, teaching, and student performance.
4. Supportive, personalised and relevant learning	Supportive learning environments provide positive personalised relationships while engaging students and professionals in rigorous and relevant learning.
5. Parent and community involvement	Parents and community members help develop, understand, and support a clear and common focus on core academic, social, and personal goals contributing to improved student performance and have a meaningful and authentic role in achieving these goals.
6. Monitoring, accountability and assessment	Teaching and learning and work practices are continually adjusted on the basis of data collected through a variety of valid and reliable methods that indicate progress and needs. The assessment results are interpreted and applied appropriately to improve performance and measurable outcomes
7. Curriculum and instruction	Aligned curriculum with core learning expectations to improve the performance of students. Students achieve high standards through rigorous, challenging learning. Staff delivers an aligned curriculum and implements research-based teaching and learning strategies.
8. Professional development	Ongoing professional development aligned with the common focus and high performance. These professional development offerings are focused and informed by research and evidence-based practices
9. Time and structure	Flexibly structured to maximise the use of time and accommodate the varied lives of their students, staff, and community in order to improve the performance of all.

HELM – Home Economics Literacy Model – A vision for the field

Aspiring to Best Practice for each of these elements is fundamental to ensuring home economics literacy is the focus of engaging in the learning and literally steering in the direction that can be recognised as good practice in the field. Collecting evidence to support claims that these practices are in place therefore becomes crucial. A variety of forms of data can be gathered and analysed. Once the data have been analysed, a claim or argument can be made using the data as evidence. The evidence for most educational claims combines multiple data sources. The question for the field is, for each of the 9 evidence-based features of home economics practice, what is the nature of the evidence being collected to determine its effective implementation and how is it being used? What is the evidence base that Home Economics Literacy is being achieved? The HELM serves as a device for members of the profession to act in a reflective way to ensure they are achieving a literate outcome.

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Author biography

Professor Donna Pendergast is Dean and Head of the School of Education and Professional Studies at Griffith University. Donna has conducted a number of national research projects of significance including 'Beyond the Middle', which investigated literacy and numeracy in middle schooling; and 'Lifelong Learning and Middle Schooling'. She has completed an evaluation of the Education Queensland Virtual Schooling Service and is often employed as a consultant to review school reform initiatives. Donna has several books published of relevance to contemporary teacher work,

including *Teaching the Middle Years*, *The Millennial Adolescent*, and *Groovy Chicks and Blokey Blokes*. Donna is highly sought after as a speaker on the topic of the MilGen and teaching, and has completed several intergenerational studies in content areas. Donna researches and writes about home economics philosophy, education and practice and is a member of the IFHE Executive, Chairperson of the IFHE Think Tank Committee, and Editor of the *International Journal of Home Economics*.

Through the eyes of a satin bowerbird

a bricolage metaphor as an organising principle for a self-reflective process to explore spirituality in home economics contexts.

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This is a peer reviewed article

Abstract

Researchers often “act like” satin bowerbirds as they purposefully, selectively and instinctively select and display the “bluest of trophies” or “the best bits” of their research. The strategies conveyed in this paper were used as an observational technique to explore cross-cultural views and perceptions of spirituality within home economics contexts. This article articulates the methodological journey towards construction of a bricolage research metaphor: *through the eyes of a satin bowerbird*. The paper uses a narrative approach to communicate the researcher's story of the development of an organising principle for a self-reflective process to explain research decisions and actions within uncertain research environments. The *satin bowerbird bricolage* entailed a six-phase navigation method of engaging, selecting, focusing, refining, defining, and weaving theoretical and methodological concepts together with key insights of the research. The methodology explored in this paper offers a transparency technique for a critical self-reflection process exposes a researcher's choices of theoretical and methodological lenses also exposes the complexity of individualised researcher realities.

Introduction

This article articulates the methodological journey which was undertaken in constructing a research metaphor: *through the eyes of a satin bowerbird*. The purpose of this paper is to share the journey of a home economics researcher navigating a complex, highly subjective and fluid research environment. A recent project that examined cross-cultural views and perceptions of spirituality within a home economics paradigm required the researcher to examine deeply her own subjective perceptions. The way that the researcher perceived the subjective topic of spirituality required a non-traditional approach to research practices. In order to study spirituality as a research topic, the location of a diverse and socially responsive theoretical and methodological framework within which to operate was required.

As a methodological process, metaphor is useful. Following Schmitt's (2005) ‘rules’ for the use of metaphor in qualitative research, the satin bowerbird metaphor operated within a broader research strategy. As a caveat, if taken too far, an analogy may expose illogical or irrational arguments that may detract from the author's intentions (Thouless, 1961). The satin bowerbird metaphor was not used to justify researcher reasoning or results; rather, it was an organising principle for a self-reflective process to explain research decisions and actions. To illuminate the metaphor, this article uses a narrative approach to communicate the research story and a colour version of this paper would be beneficial for the reader.

It started with a poem

Satin Bowerbird Blues

Ptilinorhynchus violaceus

By Richard Foerster

*When whatever tripwire
triggers his compulsion,
he constructs a U from twigs
and hoop-pine needles tapered
foot-high at the tips
like horns. To this courtyard
of bliss he brings the bluest
trophies he can find
to entice the demurely dull-*

*green bowerhens
to his violaceous eyes –
blues electric and ultra-
marine: swap-shop gems,
wrapper scraps and straws,
a plastic bottlecap. His is craft
cerulean, lapis, indican
to swell a heart like a sapphire
star till he bursts into a fluff-’n-
ruffle jig with a navy clothespeg,
perhaps, in his bill.*

*Whether an audience will come
and stay, enthralled, he breaks –
guttural, glissando – into pure
cyanic song.*

Figure 1: Satin Bowerbird Blues a Poem by Richard Foerster (2005)

In the spirit of bricolage, which will be explained later in this article, and in order to give the reader a poetic introduction to my work, I present this poem (Figure 1) entitled *Satin Bowerbird*



Figure 2: Male satin bowerbird (*ptiliorhynchus violaceus*) decorating his bower with the bluest of trophies. Photograph by Tim Lanman retrieved on 10 May 2012 via National Geographic website Germany at <http://ngm.nationalgeographic>

Blues by Richard Foerster (2005), used with permission.

The genesis of the Satin Bowerbird Bricolage (hereafter referred to as SBB) stemmed from a casual conversation with my partner. Reflecting on my previous research experiences, I recognised that I was ‘acting’ like a male satin bowerbird. I had anecdotal evidence of other researchers ‘feeling’ the same way about their work: a compulsion to select and present only ‘the best bits’ of literature and research. On rainforest walks near my home in South-East Queensland, I have had personal encounters with satin bowerbirds, their bowers and their collections of bright blue ornaments, which left me with enduring feelings of awe and wonder. My inquisitiveness obliged me to search academic literature to learn more about the satin bowerbird.

I discovered that the bowerbird is thought to be one of the most intelligent birds in the avian world due to its cognitive ability to use tools to build elaborate structures called bowers (Keagy, Savard, & Borgia, 2009). Avian researchers use the term ‘avenue’ to describe the purpose of a bower. The bower is not a nest; rather, it is an invitation to nest. The male satin

bowerbird (*Ptilinorhynchus violaceus*) (Figure 2) is unique for two reasons: 1) it weaves, paints and decorates a bower to entice a mate; and 2) uses decorations of a specific colour blue. For interest’s sake, if blue ornaments are not available, yellow or white objects are sometimes collected. Some other bowerbird species collect shells, flowers, feathers, fungi to adorn the bower. Male bowerbirds often ‘steal’ from other males’ bowers to improve their own bower decorations. The female bowerbird will then assess the ‘honesty’ of the male bowerbird by investigating the bower for colour, arrangement, quality and quantity of the ornaments that adorn the bower. It is believed that parasites in the eyes of the male satin bowerbird affect the selection of the bluest of ornaments for the arrangement in his bower (Keagy et al., 2009). In this way, by the selection and arrangement of these ‘bluest of trophies’, a female bowerbird can identify how healthy the male bird is and therefore determine his “honesty” as a suitable mating partner. Although it is only the male bowerbird that creates the bower, for the purpose of the analogy developed in this paper, gender is multidirectional and no bias is intended. For the bowerbirds, the bower is not the final nesting place (or home)

that makes for successful breeding – it is the preparation of the bower that makes the difference for nesting success.

With my fascination deepening, I wrote to the author of the poem (Figure 1) to find out about his experience with the satin bowerbird. Richard Foerster explained:

I wrote “Satin Bowerbird Blues” in January 2001 during my residency at Varuna, the novelist Eleanor Dark’s house in Katoomba that is now a writers’ colony. Over the course of my weeks there, I got to watch the bowerbird in his efforts to construct a bower. Alas, he repeatedly failed since more mature males kept raiding his trophies. Still, the urge to construct and dance and sing never deserted him. There’s a life-lesson there. (I’m curious to know, however, what these birds did before the advent of human detritus.) (personal email communication, Foerster, 2013)

Indeed it is a curious question – what did satin bowerbirds do before humans invented blue clothes pegs? Regardless, it was the instinctive habits and persistence of this much watched adolescent satin bowerbird that gave my research its unique perspective.

A methodological metaphor: through the eyes of a satin bowerbird

As the research progressed, I began to see points of connection between the satin bowerbird's behaviours and my research behaviours. I now develop the methodological metaphor: *through the eyes of the satin bowerbird* by "speaking to" Figure 3. It will be explained that this methodological metaphor required a complex set of considerations. The suite of photographs in Figure 3 is a pictorial representation of the way I visualised a narrowing of my research focus. I will explain each of these photographs and corresponding concepts in six stages: engaging, selecting, focusing, refining, defining and weaving. I begin with a perceived conflict between traditional and non-traditional ways to approach research.

Some see research as a step-by-step process that starts with a research question and ends with a technically formatted report which logically and objectively arrives at a definitive answer to that specific research question (Creswell, 2005). My research did not follow such a simple linear process. The doctoral thesis was structured using traditional signposts for identifying quality research (introduction, literature review, theoretical framework, methodology, data and analysis, discussion, and conclusion); but in places, the manuscript was also creative in its writing style and visualisations, and examples are provided throughout this paper.

I associate the SBB with a movement toward visualising research (Banks,

2005; O'Halloran, 2008). I used creative devices to allow for fluidity of thought and development of a twisting and turning research story (Creswell, 2005). By creative, I mean the use of devices such as poems, metaphors, analogies, photographs, annotated drawings, models and graphs to highlight and explain complex concepts. There were three reasons for this style of presentation. First, the study was internet-based; as a site of data collection, the internet is a highly visual space (Silverman, 2010). Second, following Creswell's (2005, pp. 440–441) characteristics of a critical ethnographer, I did not behave like a passive observer; rather, I took an active position and involved myself within the research environments. Third,

Through the eyes of a satin bowerbird: a research navigation metaphor

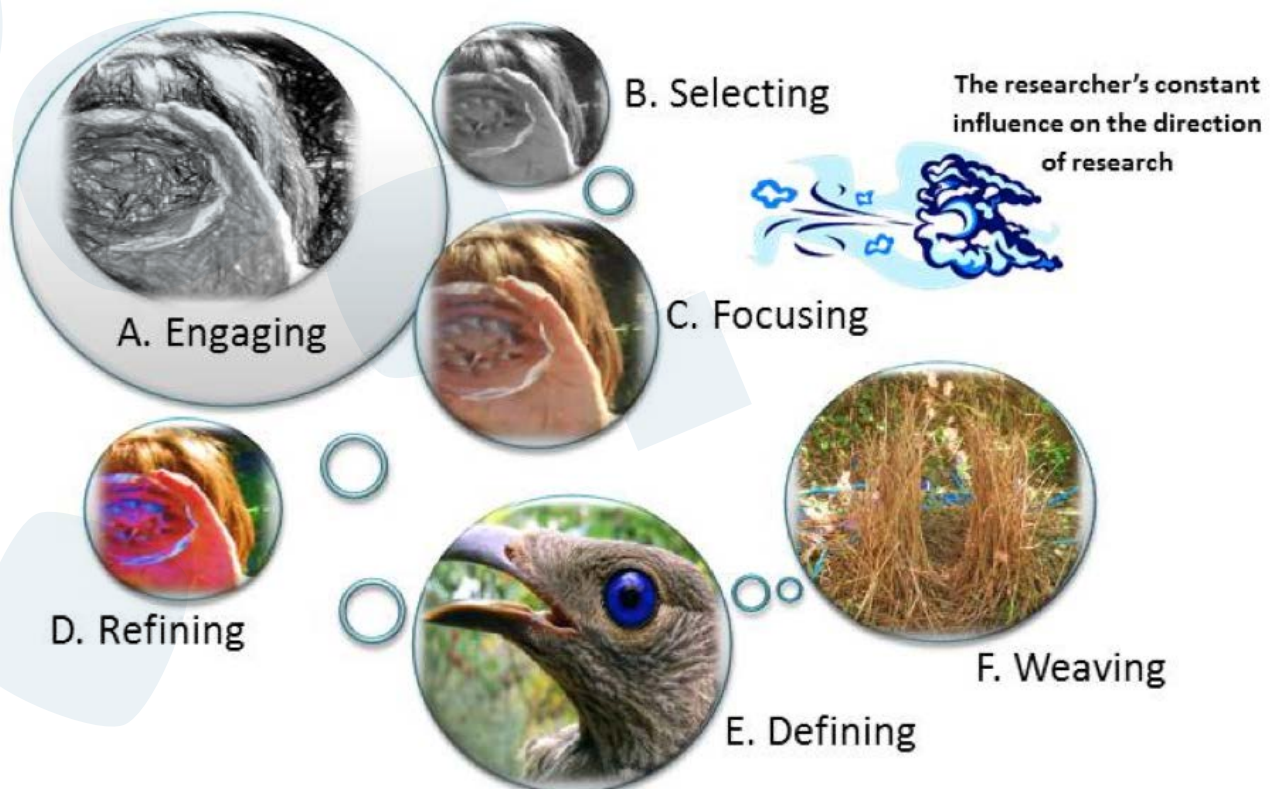


Figure 3: Model to visually represent the stages of navigating the research environment and narrowing the research lenses to arrive at the research metaphor: *through the eyes of a satin bowerbird*

Through the eyes of a satin bowerbird

as a body of work, the thesis became more accessible for the visual reader.

I visualised the phases of research development as “bubbles” (Figure 3). The bubbles represent the fragility and instability of the research environment. In the initial stages, I was *not* secured within solid and grounded approaches to knowledge, knowing, culture and society. To assist with understanding my influence on the direction of the research, I used an analogy of wind blowing because wind speed, direction and strength are influenced by planetary forces. I envisaged the researcher (me) as the wind being influenced by planetary forces, for example, embedded cultural expectations, media, wars, climate change and so forth – all forces and pressures beyond my immediate control; yet, those forces still have an influence on me.

To explain how the bubbles were positioned in relation to each other: *all bubbles floated together in a chaotic dance; some bubbles would bounce off one another, some bubbles merged, some bubbles would dissipate or violently explode into nothingness.* Enduring bubbles moved forward in the same direction. This forward movement was because I exerted constant influence on the direction of the research. Even with some bubbles bursting along the way, each bubble's content was recorded in diary entries during the research process so that events and experiences which led to theoretical and methodological decisions could be recalled.

I am the subject in photographs A, B, C and D in Figure 3. It is the same photograph. I am holding a crystal prism. The prism is multifaceted and creates the illusion of my eye as a multifaceted optical lens. My eye is repeated several times – this represents the multifaceted nature of research. Each photograph has been manipulated for monochrome, colour, saturation and stylised effects using the “artistic” facility available in *Word 2010*. I now explain the content of each of the bubbles.



Photograph A: *Engaging in the whole research environment*

Photograph A: Engaging (Figure 3) is a sketchy and unfocused view of the whole research environment. Within this bubble, decisions are made about epistemology, ontology and quantitative or qualitative research paradigms (Creswell, 2005). This engagement stage represented the vast array of research paradigms available. It was daunting to immerse myself in the possibilities of research. Importantly, I was also being influenced by other people's opinions and perspectives. A diary entry as narrative (Table 1) recorded how other people perceived my research topics and my reaction to their comments.

Table 1: Anecdotal evidence and researcher reflection about other people's perceptions of the research topics

Across years of study, when I explain to people that my research interests are ‘spirituality’, ‘spiritual health and well-being’ and ‘home economics’, I have been faced with a diverse range of anecdotal yet predictable responses. Indicative anecdotal comments include:

- They are very broad subjects!
- How can you study spirituality?

- Spirituality can't (or shouldn't) be measured.
- Spirituality is religious. Religion has no place in academia or home economics.
- I'm a very spiritual person ... let your angels/goddesses/stars guide you.
- What is home economics? Isn't that just cooking and sewing?
- I can see how cooking and eating could be a spiritual experience – but sewing?

I assumed that these expressions are informed by personal experience, worldviews and taken-for-granted assumptions as initial perceptions about spirituality and home economics. Despite the differences of opinion, deepening conversations led me to discover commonalities of understanding. To investigate spiritual discourses in home economics contexts, for me, the most contentious issue is an interrogation of my own researcher perspectives (Adams St. Pierre, 2011; Joe L. Kincheloe, 2001). The anecdotal evidence, in conjunction with recommendations about precise theoretical and methodological frameworks (Creswell, 2005) make it apparent to me that my research topics are going to require certain constraints to contain the enormity of views, perceptions and perspectives about spirituality and home economics – including my own subjective interpretations.

The selection of appropriate research paradigms which satisfactorily address researcher subjectivity is a labyrinth. I needed to identify my research strengths and weaknesses. For example, I have an aptitude for language; statistics, however, required a proficiency which I was still to acquire. Therefore, qualitative research was a suitable paradigm to pursue. I had already aligned with a constructivist epistemology as a result of my teaching degree (McInerney & McInerney, 2006). I had predetermined the broad subjects of my research as spirituality

and home economics; a sociocultural approach was therefore appropriate. Home economics is an identified interdisciplinary subject (International Federation for Home Economics, 2009), so an interdisciplinary approach was also applicable. Each of these deliberations and decisions arrived through an iterative and reflective process as I waded through the literature relating to selection of mega and meta research paradigms.



Photograph B: Selecting mega and meta research paradigms with complementary methodology

Photograph B: Selecting (Figure 3) is now in focus, but is still monochrome. Gee (2005) described socially constructed discourses as “grey soup”. I found that the qualitative paradigm is still considered by some researchers to be about making “black and white” decisions in relation to methodology (Creswell, 2005). In order to overcome some epistemological issues found within qualitative paradigms it was necessary to select research paradigms which would complement and encompass various cross-cultural perceptions of spirituality (Creswell, 2005; Guba & Lincoln, 1994; Lincoln, 2001; Reid, 1997). I set out on a very complex journey to locate appropriate perspectives that suited the research aims.

To illustrate, Strauss and Corbin's (1990) approach to traditional grounded theory is an example of rigid technical structure applied to a methodology. Strauss and Corbin believed that social scientists could be objective and so could arrive at conclusions directly from the data. However, Charmaz (2006) developed grounded theory by introducing “a constructivist approach”. By introducing constructivism into grounded theory, Charmaz asserted that researcher subjectivity must be taken into account. Researcher subjectivity had not been adequately addressed in previous versions of grounded theory (Denscombe, 2007). Traditional grounded theory contained many “shades of grey” – hence, the monochrome bubble. Similar shades of grey relating to rigour, validity and subjectivity were also found in content analysis and discourse analysis (Gee, 2005; Silverman, 2006). I needed to identify the specific ingredients of Gee's (2005) “grey soup”. Selection of mega and meta theoretical paradigms added colour to my research lens.

From the outset it seemed evident that I required research lenses that would enable me to understand how, and in what ways, spirituality was a unique and personal subjective experience for each individual (Deagon, 2014). Yet, I also needed to find a way to locate shared meaning for the highly subjective constructs (Deagon & Pendergast, 2014). Each individual operates in interdisciplinary spaces, complementary and competing paradigms and multifaceted contexts. To address these issues, a radical constructivist approach was useful. Von Glaserfeld (1995) explains the concept of radical constructivism as starting:

... from the assumption that knowledge, no matter how it be defined, is in the heads of persons, and that the thinking subject has no alternative but to construct what he or she knows on the basis of his or her own experience. What we make of experience constitutes the only world we consciously live in... [sorted into different categories] all kinds of experience are essentially

subjective, and though I may find reasons to believe that my experience may not be unlike yours, I have no way of knowing that it is the same (p. 1).

From this perspective, I could move forward with the research in the knowledge that any reports were based on my own subjective interpretation of language, experiences and events. It was rational and logical to expect that everyone I encountered on this research journey was also unique.

Understanding complexity resulted in my construction of a *liquid-qualitative research paradigm* based on Zygmunt Bauman's concept of *liquid modernity* (Bauman, 2011). *Liquid modernity* is a metaphorical space where there is a “growing conviction that change is **the only** permanence, and uncertainty **the only** certainty” (original emphasis, Bauman, 2012, p. viii). Paradoxically, many dominant mega-paradigms (for example, modernism, postmodernism, structuralism and poststructuralism) operate simultaneously within spiritual and home economics discourses and many mega-paradigms became evident in the study. This caused a significant problem of perceived paradigm slippages and notable inconsistencies in reporting (Malott, 2010). Notwithstanding uniqueness, I needed to rectify issues of instability and uncertainty.

Zygmunt Bauman (2011) explained *liquid modernity* as a follow-on theorisation to traditional structured thoughts about modernity, and stated that the ‘passage from the “solid” to the “liquid” phase of modernity’ is a condition:

...in which social forms (structures that limit individual choices, institutions that guard repetitions of routines, patterns of acceptable behaviour) can no longer (and are not expected to) keep their shape for long, because they decompose and melt faster than the time it takes to cast them, and once they are cast for them to set (p. 1).

Bauman's mega-paradigm of liquid modernity provided me with some hope and gave clues as to the future of

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research paradigms. I have not yet been privileged with a “lifetime project” of studying the nuances and subtleties of mega or meta paradigms available to a contemporary researcher; nonetheless, Bauman captured the essence of my struggles with a rapidly changing world of thoughts, philosophy, world events and everyday human actions. Initially, and as a result of reading Adams St Pierre’s (2011) critique of “post-qualitative research”, I came to appreciate that I was researching on the cusp of current qualitative techniques and that the concept of spirituality was being viewed through numerous competing and complementary research paradigms, often from the past and/or Euro-centric perspectives (Malott, 2010). For this reason, utilising a Bernsteinian approach to the production, recontextualisation and reproduction of knowledge (Bernstein, 2000), I recontextualised Bauman’s concept of liquid modernity (Bauman, 2011, 2012b) to capture the essential essence of my uncertain research environment. I created a meta-paradigm called a *liquid-qualitative research environment*. I came to understand that my study was underpinned by the following assumptions about knowledge, knowing, individuals and society:

1. Nothing is certain except uncertainty;
2. Nothing can be taken for granted or assumed, and this is a significant paradox;
3. Knowledge, knowing and reality is only in the mind of the individual and is unpredictable;
4. Context is everything but is rarely transparent or knowable; and
5. Events and experiences are keys to an individual’s perceptions and subjectivity.

Framed within the liquescent meta-framework described above, and “knowing” that “everything” is in a constant state of flux, rather than unsettling my nerve and increasing my fears and uncertainty, I felt more confident to refocus on the research question.



Photograph C: Focusing the research question

Photograph C: Focusing (Figure 3) is represented as a naturally coloured lens and is where the research question and the research contexts became clearer. This stage arrived with the conclusion of my earlier research (Deagon, 2009). It was an advantage to have had previous research experience in the fields of education, health education and spirituality. Through my earlier research experience I had gained a foundational understanding of poststructuralism, postmodernism, feminism and constructivist theories (Deagon, 2009; Pendergast, 1999; Weedon, 1987). At the conclusion of my Master of Education studies I had tentatively developed my future doctoral research question. In the initial stages I had asked, what could spirituality “look like” in a home economics classroom? Many more colourful research options became available to me. As a postgraduate research assistant, I had worked with video transcription and analysis, semiotics, and multimodal discourse analysis frameworks (O’Mara, Beavis, & Deagon, 2010). With exposure to alternative methodological perspectives, and my epistemological lens developing, my research question evolved. The research question which ultimately guided the study was “can spiritual health and wellbeing be an observable phenomenon in home

economics sites?” together with several sub-questions (for the outcomes of this research see Deagon & Pendergast, 2014). I could now move to decisions about an appropriate methodology that would facilitate addressing the research questions. Again, this was not an easy task because of an identified reciprocity between spirituality and home economics.

Mutual partners: spirituality and home economics

Home economics is an interdisciplinary academic arena where curriculum typically covers topics such as food literacy, nutrition, textiles, early childhood, adolescent health, economics of the home, environmental sustainability, and social, cultural, political and spiritual influences on consumption practices (Deagon & Pendergast, 2012). Generally, the focus of home economics internationally is to attain “optimal and sustainable health and wellbeing” for individuals, families and communities in everyday life situations (International Federation for Home Economics, 2009). In the course of their work, home economists utilise a complex array of philosophies and ideologies to reflect on the social, cultural, environmental, political and spiritual contexts of the people they work with (McGregor, Pendergast, Seniuk, Eghan, & Engberg, 2008). Most of these contexts (cultural, social, political and so forth) are axiomatic; however, spiritual contexts are still somewhat vague in meaning. Deagon (2013, p. 329) defined *spiritual contexts* as “the complex, multi-logical and interrelated conditions in which spiritual health and well-being exists, occurs or is developed”. Some people assume that spirituality and religiosity are mutually exclusive concepts (Blake, 1996; Marples, 2006; Pargament & Sweeney, 2011). Nonetheless, there is a growing number of researchers who believe that spirituality is an innate characteristic of all human beings, which has consequences for health and wellbeing outcomes (Best, 2000; Crawford & Rossiter, 2006; De Souza, 2006; Fisher, 2011; Hawks, 1994; Hochheimer, 2012; McGregor

& Chesworth, 2005; Radford, 2006; Tacey, 2003). Deagon (2013, p. 329) characterises *spiritual health and wellbeing* as:

...a complex construct that serves a human need to: a) quest for self-knowledge to give meaning and purpose in life; b) nurture and maintain quality relationships with other people; c) develop a genuine appreciation of and connectedness to the natural world; and d) define individually and validate socially the mysterious connectedness of everything in the known and unknown universe.

Home economics philosophies, policies and practices were found to have synergies with spiritual health and wellbeing frameworks (Deagon, 2012; Deagon & Pendergast, 2012; Deagon & Pendergast, 2014). Given the complexities of spiritual contexts, spiritual health and wellbeing, and of home economics, it was necessary for me to locate an equally complex research methodology in which to research these topics.



Photograph D: Refining the Methodology – the Journey Toward Bricolage

Photograph D: Refining (Figure 3) is represented as a highlighted blue lens which focused the research context to select bricolage methodology. I selected bricolage because I could

not erase my previous experiences with various methodologies – each methodology had “blue trophies” to offer. As a result, the SBB was beginning to take form of its own accord – hence the blue tinted lens.

Bricolage described my actions of including and excluding certain methodological knowledge in order to weave together a coherent and thoughtful research design and relevant method that could address the research questions (Kincheloe, 2001). At each phase of engagement with academic research, I was actively recontextualising previous exposure to various methodologies. Therefore, certain aspects and underpinning theories about grounded theory, content analysis, discourse analysis, multimodal discourse analysis, semiotics and transgressive methodologies each necessarily contributed to the SSB. As my research deepened, my research behaviours became significantly more refined.

Bricolage

Bricolage worked in concert with the radical constructivist’s perspective of a liquid-qualitative research environment. These concepts combined fortified the platform from which I could self-reflect and identify my perspective of the world and how I saw myself operating within it, personally, professionally and as researcher. I followed Kincheloe’s (2005) assertion that:

...as one labors [sic] to expose the various structures that covertly shape one’s own and other scholars’ research narratives, the bricolage highlights the relationship between a researcher’s ways of seeing and the social location of his or her personal history (p. 324).

Taking into consideration the fact that there are many identified issues in studying spirituality (Berry, 2005; de Jager Meezenbroek et al., 2010; O’Connell & Skevington, 2007), bricolage provided an opportunity for deliberation. Predefined and well used research paradigms, methodology and methods seemed rigid, inflexible

or inappropriate for an interpretation and analysis of the research concepts (Adams St. Pierre, 2011; Charmaz, 2006; Cohen & Manion, 1994; Creswell, 2005; Denzin & Lincoln, 2011; Silverman, 2006; Strauss & Corbin, 1990). My research was organic, fluid and flowing... or liquid.

Kincheloe, McLaren and Steinberg (2011) described a researcher-as-bricoleur as appreciating research as “a power-driven act” and as someone who also:

... abandons the quest for some naïve concept of realism, focusing instead on the clarification of his or her position in the web of reality and the social locations of other researchers and the ways they shape the production and interpretation of knowledge (p. 168).

“Web of reality” and “social locations” identifies complexity as an issue. Human beings, health, wellbeing and spirituality are complex notions constructed within complex social situations (Crawford & Rossiter, 2006; Hawks, 2004; McGregor & Chesworth, 2005; Pargament & Sweeney, 2011). The developing theory which supports bricolage is thought to be a response to complexity.

Using Kincheloe’s (2005) theory, the assumptions which drive complexity theory and also underpin the rationale of bricolage are: 1) explicate and implicate orders of reality; 2) questioning universalism; 3) polysemy; 4) living processes in which cultural entities are situated; 5) ontology of relationships and connections; 6) intersecting contexts; 7) multiple epistemologies; 8) intertextuality; 9) discursive construction; 10) interpretive aspects of all knowledge; 11) fictive dimensions of research findings; and 12) relationships between power and knowledge (for definitions and explanations see Kincheloe, 2005, pp. 327–330). Despite the intricacies of complexity assumptions, for the bricoleur, rigour in research is still important (Kincheloe, 2001). By adopting a bricolage approach I could make it clear that I understood

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these notions “out of [a] respect for complexity of the lived world and the complications of power” (Kincheloe, et al., 2011, p. 168).

Developing a metaphor: quilts, crystals and satin bowerbirds

At this stage of my investigation into bricolage, I was introduced to a “quilting” metaphor. Indeed, a few years into my research project, it had become a “quilted” patchwork design (Denzin & Lincoln, 2011, p. 4). To describe myself as a researcher, as “a maker of quilts” appealed to my home economics sensibilities. From experience, one cannot construct a quilt without gathering and improvising the necessary tools. Anyone who has attempted to make a quilt (and succeeded) knows that it requires a great deal of dedication, patience, forethought, planning, creativity, accuracy and precision, and it helps if you have a passion for quilting. This was an apt description for my approach to the research. Although the quilting and crystal metaphors have received some criticism (Paradis, 2013), rightly or wrongly identified as a bricoleur making a quilt, I then questioned the

appropriateness of using metaphor in qualitative research. The parameters for using metaphors and expanded explanation of the SBB metaphor are outlined next.

Photograph E: Defining (Figure 3) represents a narrowing of the research metaphor: *through the eyes of a satin bowerbird*. In relation to radical constructivist and liquid-qualitative paradigms, subjectivity and interpretation of “truth” necessarily feature. It was important to consider that while collecting and analysing the data, I was “being” a home economics professional with a particular repertoire of expected field specific knowledge, values and assumptions. Guba and Lincoln (1994) state that “ultimately, researchers will represent... material in the frameworks and languages of their research concerns and in disciplinary terms” (p. 20). The presentation of research may be embodied in different ways, but the technical language of home economics and teaching as my disciplinary fields remained. As a home economist and educator engaging with the data and constructing knowledge, I had an advantage (and bias) in accessing certain disciplinary knowledges. To provide rigour, and focus my biases, perceiving myself

as *looking through the eyes of a satin bowerbird* enabled me to critically analyse my own thought processes in concert with the bricolage.

Metaphor, creative devices and visualising research

There are advantages to using a good metaphor to describe a complex process. As explained in the opening paragraphs of this paper, it was my appreciation for the natural world that inspired me to use an Australian rainforest bird as a metaphor to explain my research behaviour. It will also be recalled that care must be taken when using metaphors in qualitative research (Schmitt, 2005; Thouless, 1961). Schmitt (2005) defined “the rules” for identifying a metaphor as: a) a word or phrase, strictly-speaking, which can be understood beyond the literal meaning in context of what is being said; and b) the literal meaning which stems from an area of physical or cultural experience (source area); and c) which, however, is – in this context – transferred to a second, often abstract, area (target area).

Despite criticisms, there are many instances of metaphor used in philosophy and literature to challenge the hegemonic ideology of the time. To illustrate, René Descartes (1596–1650) used architectural metaphors to describe a preparatory phase before applying his *method of doubt* (Deagon, 2014; Descartes, 1901). Staying true to his mathematical principles, Descartes consistently used architectural terminology, such as demolition, building, foundations and construction in the literal sense, as a metaphor for the deconstruction and reconstruction of an individual's knowledge (Garber, 1998, 2003). This metaphor likens preparing the mind to building a meticulously planned city from the ground up (for a critical analysis of Descartes' work specific for home economics contexts see Deagon, 2014). In contemporary times, metaphor has also been used to describe society and complex processes. For example, Bauman (2011) described contemporary society as a *liquid*. McGregor (2011)



Photograph E: Defining the research metaphor

used a *spider plant* analogy to describe an ecological and holistic vision of home economics in the twenty-first century. Turkki (2012) used *an old, vital tree* to express how she conceived a renewal and revitalisation of the basic structures of home economics through education and research. Schmitt (2005, pp. 360–366) observed that metaphors can manifest in qualitative research as: therapeutic tools; used to describe the results of qualitative research; used to describe the qualitative research process; used to search for specified metaphors in the data; used in the

self-reflection process of researchers – or – metaphors we research by; eliciting explicit metaphors from research participants; used as part of a broader research strategy; or reconstruction of research participants’ metaphorical points of view and of cultural phenomena. These tools manifest in the SBB.

I now provide a practical example of how I came to *see through the eyes of the satin bowerbird* as the metaphor for selecting and working within the liquid-qualitative research environment. In

the final copy of the thesis manuscript (see Deagon, 2013), I used titles and stanzas of Foerster’s poem (Figure 1) as “signposts” to accompany and explain traditional headings such as “introduction”, “methodology” and so forth (Table 2). The thesis had nine chapters in total, but two chapters were data and analysis, so the poem was divided into eight sections. Each traditional chapter heading was accompanied by a SBB concept that was displayed in solid electric blue boxes with white writing.

Table 2: Creation of non-traditional chapter headings using stanzas of a poem by Richard Foerster entitled *Satin Bowerbird Blues* to complement SBB and to explain traditional chapter headings

Traditional chapter heading	SBB chapter heading	Corresponding stanza of the poem
Chapter one: introduction	The compulsion	When whatever tripwire triggers his compulsion, he constructs a U from twigs
Chapter two: paradigms and perspectives	The building materials	and hoop-pine needles tapered foot-high at the tips like horns. To this courtyard
Chapter three: literature review	Selecting the sites to construct the bower	of bliss he brings the bluest trophies he can find to entice the demurely dull-
Chapter four: theoretical framework	Lenses and structure	green bowerhens to his violaceous eyes – blues electric and ultra-
Chapter five: method	The craft of collection, selection and weaving	marine: swap-shop gems, wrapper scraps and straws, a plastic bottlecap. His is craft
Chapters six and seven: data and analysis	Decorating the bower with the bluest of trophies	cerulean, lapis, indican to swell a heart like a sapphire star till he bursts into a fluff-
Chapter eight: discussion and findings	The mature bowerbird’s decorated bower	’n-ruffle jig with a navy clothespeg, perhaps, in his bill whether an audience will come
Chapter nine: conclusion	Cyanic song	and stay, enthralled, he breaks – guttural, glissando – into pure cyanic song.

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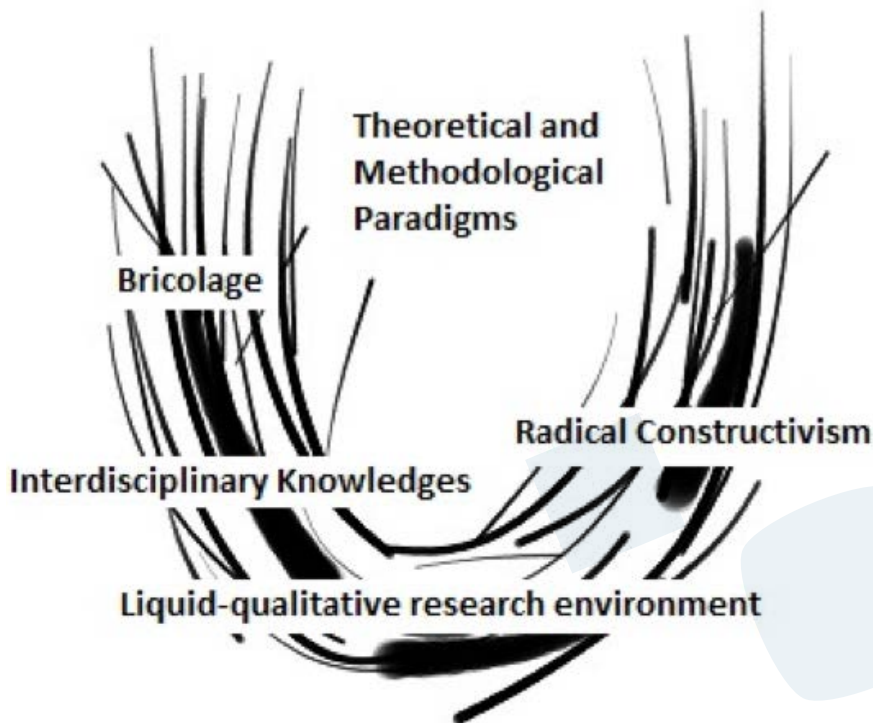


Figure 4: Example of a “research bower” used to display the “bluest of trophies” relating to selection and presentation of theoretical and methodological paradigms

is significant because it signifies a frame of reference tool in a literal sense. To illustrate, this means that I envisaged the analysis and findings as situated just beyond the U shaped bower that was constructed using theory, methods, data, themes, and so forth. Therein, once the bower was constructed, I looked through the bower as a framing tool in order to fix my focus on the research topics, analysis and findings as cropped, yet visible, scenery on either side. In this way, I could take in all the theoretical and philosophical material woven together to surround (frame) the research topics. Conceptualising the U-shaped bower stabilised the research environment and research topics. Furthermore, although the research bowers were fixed within the pages of the thesis manuscript, a differently constructed research bower (an existing or new methodology or a new satin bowerbird) would enable the research content to remain open for interpretation. The bricoleur acknowledges that insights and findings are always subjective and open for interpretation (Kincheloe, 2005). Thus it might be that the satin bowerbird approach is not a new methodology but rather a way of describing a type of bricolage.

Weaving the research bowers and selecting the bluest trophies

This section expands on the behaviours of the satin bowerbird to explore the concept of collecting and displaying “the bluest of trophies” and building research “bowers”. The behaviours of a satin bowerbird were juxtaposed with the research paradigms and home economics principles to explain connection points and relationships between the concepts.

It will be recalled that bower is the preparation phase before mating and nesting. The metaphor refers to home economics education as the preparation phase before young people become adults and then set up a home for raising a family. How well young people are prepared will determine the long-term success of the home and

Referring to Foerster’s *Satin Bowerbird Blues* poem (Figure 1 and Table 2), I found that I was purposefully selecting “the bluest trophies” for my “U shaped” research “bower”. As will be recalled from the description of the male satin bowerbird offered at the beginning of this paper, this meant that I was mentally collecting and categorising artefacts (literature and data) into dichotomies of true/false, good/evil, beautiful/ugly, thereby rejecting purposefully the negative and embracing the positive to entice my audience. To consolidate the metaphor: I “acted” like I was “seeing through the eyes of a satin bowerbird” (researcher’s perspective), collecting the “bluest of trophies” and “weaving” (theory, methodology, data, analysis) for the purpose of constructing a bower or “avenue to view” (thesis manuscript) the research and research outcomes. This description aligns with a number of Schmitt’s (2005) parameters for using metaphor in qualitative research.



Photograph F: Weaving the Research Bowers

Photograph F: Weaving (Figure 3) represents “The Research Bower”. Figure 4 is a visual representation of how I saw the theoretical and methodological concepts of the thesis represented in a U-shaped bower formation. I persisted with the U shape because it matched the metaphor. I am a visual person and interpreted “the bower” in a literal sense to display the “bluest of trophies”. Concepts were woven together and used as “an avenue to view” the research topics. The phrase “avenue to view”

family relationships. What ornaments are necessary? What characteristics does my potential mate need to offer me? How can I keep myself healthy? The metaphor also relates to my actions

as a researcher and home economist. What skills do I need to acquire for my professions? What are the tools that I need to master? How can I present this research to entice the audience? Table

3 describes how I perceived there to be similarities between the satin bowerbird, home economics and the bricolage approach.

Table 3: Characteristics of the satin bowerbird and conceptualised relationships with home economics and the research approach

Satin Bowerbird	Home Economics	Bricolage Approach
Weaving of pine needles and twigs	Contexts: weaving of interdisciplinary knowledges	Sites and Contexts: weaving interdisciplinary knowledges, text to produce research report
Bower	Preparing human beings for life participation, bodies of knowledge	Avenue to view and evaluate research
Nest	Home, everyday life, family, community	Successful impact of research
Stealing / Raiding	Interdisciplinary, transdisciplinary, multidisciplinary knowledges.	Interdisciplinary knowledges, competing and complimentary methodologies, personal experiences
Male/Female roles	Awareness of traditional and non-traditional gender roles	Awareness of patriarchal dominance and its influences on home economics, journalism, academia
Trophies, ornaments and decorations	Essential essence, best practice, absolutely necessary, intrinsic qualities, strengths	Essential essence, absolutely necessary, intrinsic qualities, strengths of philosophy, theory, methodology, data sources and digital artefacts
Focuses on aesthetic detail for success	Focus on home economics as a visionary and social reform discipline	Visual representation of the research and bricolage approach
Honesty	Morals, ethics, personal and professional honesty	Morals, ethics, personal and professional honesty, subjectivity, truth
Hard working	Service to others, multitasking, planning, project implementation	Service to home economics, academia and society, consultation and dissemination
Bower platform	Strong historical foundations	Historical foundations of science, philosophy, home economics and spiritual health and well-being
Habitat	Essential essence, including individuals, families and communities, natural and human made environments, education for sustainable development, citizenship, home economics communities	IBR, globalisation, cross-cultural, home economics, sites for production, recontextualisation and reproduction of discourse, pages of this thesis
Predators	Dominated by big history, individualism, consumerism, fear, raided by other disciplines, taken for granted, competitor disciplines	Instability and uncertainty

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Was the satin bowerbird bricolage metaphor effective?

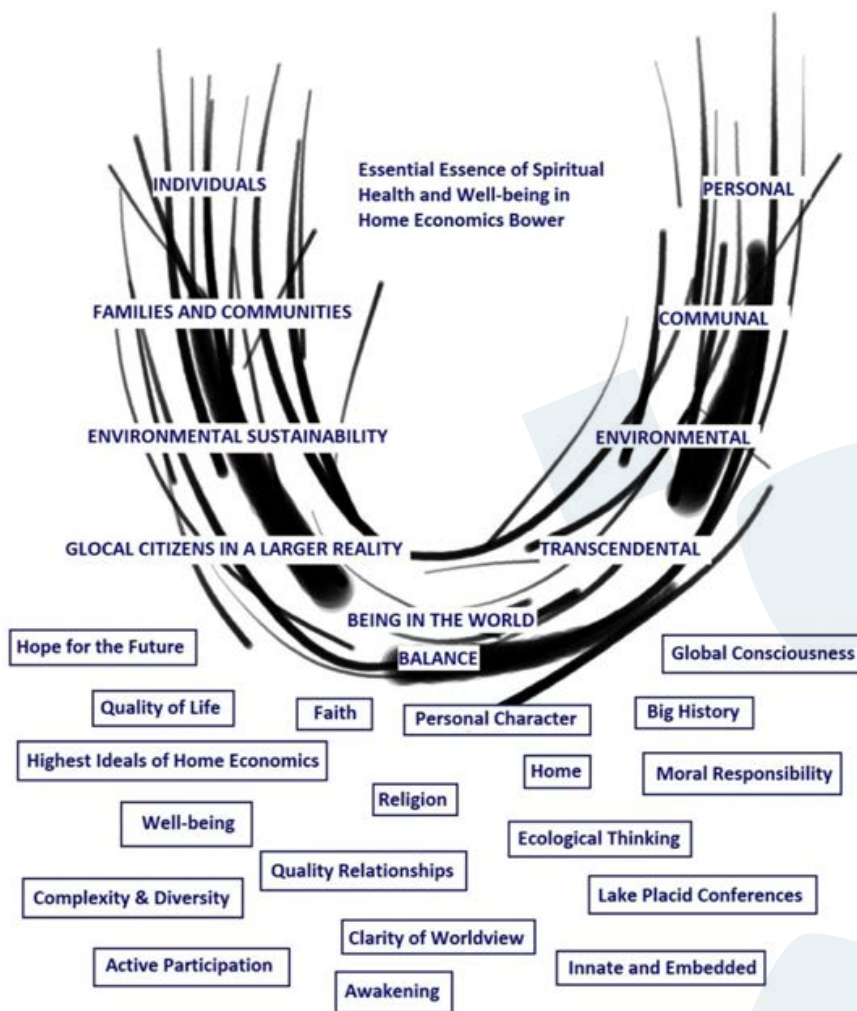


Figure 5: Research outcome represented visually as Research Bower VIII: essential essence of spiritual health and well-being in home economics

The “bower” metaphor was useful if treated like an “avenue to view” the concepts. The SBB was conceived through a complex process of critical self-examination and navigation of qualitative paradigms, epistemology, ontology, methodology, bricolage, metaphor, and the use of creative devices to report research. Metaphorically likened to a satin bowerbird learning to construct a bower, each research bower constructed for the study informed a more confident weaving of the next research bower. I constructed a number of research bowers to display “the bluest of trophies” for the pages of the thesis.

In total, eight research bowers (see examples of research bowers presented in Figures 4 and 5) were constructed and displayed in the thesis and included: 1) the theoretical and methodological paradigms (Figure 4); 2) the satin bowerbird bricolage; 3) typology of digital data; 4) an overview of a “big history” approach to spiritual discourses; 5) spiritual discourse located in early home economics texts (1901–1915); 6) spiritual discourse located in middle years of home economics texts (1923–1992); 7) home economists’ perceptions about spiritual health and well-being in home economics resulting from an

analysis of online survey data and email interviews; and 8) the essential essence of spiritual health and well-being in home economics (Figure 5), which represented the key insights of the study. Through many seasons and attempts to create an “optimal” bower, it was a mature satin bowerbird that constructed the final research bower (Figure 5). Each phase of construction informed the next attempt.

Each of the concepts woven into the walls and that adorn the entrance of the Research Bower VIII displayed in Figure 5 have their own specialised meanings. For example, *glocal* is a word specific to the home economics discipline which means local and global contexts taken together (International Federation for Home Economics, 2009). The purpose of Figure 5 is to demonstrate one of the outcomes of the whole SBB process. It is beyond the scope of this current paper to expand on the specialised discourses contained in Figure 5; they are the subject of continuing research (see Deagon & Pendergast, 2014).

The bowers and trophies represented *quality-identifiers*. As previously explained, the male satin bowerbird uses his instincts and available material to construct a bower. He then collects, and sometimes steals from other bowerbirds, bright blue trophies to decorate the entrance of the bower. The sole purpose of bower construction and collection of trophies is to entice a mate. The female satin bowerbird assesses the honesty and quality of the male satin bowerbird by inspecting the bower and discerning the quality of the blue ornaments. Constructing the bower and selecting appropriate ornaments which finally lead to successful mating are an activity perfected over time. As each breeding season passes, a more competent bower is constructed. Following this explanation, utilising the satin bowerbird metaphor in my research was useful for explaining my research behaviours and actions.

Acting as the satin bowerbird, I did not roam from my defined territory. The concepts that guided the study were: radical constructivism, liquid-qualitative research environment, bricolage,

spirituality and home economics. The research was contained within the confines of each bower which was constructed consistently using some instinct which determined that the same building materials were situated on the same firm ground and known territory: the theoretical framework and the method. The satin bowerbird, tentatively at first, then boldly, stepped away from its territory to steal from competitors: interdisciplinary knowledge and an ecological approach. The bluest trophies in the bowers were selected from data collected from an online survey; email interviews; historical text from an online database; and monitoring of online digital artefacts on the internet for a two-year

Conclusion

The work described in this article demonstrates the complexity of individualised researcher realities. Considerable time was spent conceptualising the theoretical lenses and the satin bowerbird bricolage concepts in order to sufficiently address the aims of the research project. The six phase research navigation method (engaging, selecting, focusing, refining, defining and weaving) was useful. Kincheloe (2005) reminded me that the researcher-as-bricoleur maintains focus on complexity. Another satin bowerbird (another researcher) will construct a different suite of research bowers to explore similar and/or different aspects of the same subject material. This is the nature of a bricoleur working in a liquid-qualitative research environment. Qualitative research environments, spirituality and spiritual experiences are living processes defined within the cultural entities within which the individual is situated. Characterising spirituality and spiritual contexts is also a living process where big history, present times and possible futures have, do and will continue to influence recontextualisation and reproduction of meaning. Personal and researcher thought processes contribute to locating relationships and connections between ranges of fluid research constructs. There are many more contexts yet to be studied through the eyes of a satin bowerbird. An implication of the satin bowerbird bricolage is that the qualitative research academy has an additional useful metaphor for explaining the purposeful and selective behaviours of researchers because “acting-like” a satin bowerbird is, essentially, what researchers do instinctively in the course of their everyday work – select and display the “bluest of trophies” or “the best bits” of their research in order to entice and captivate an audience.

period. This data contributed to the wall construction of *Research Bower VIII: essential essence of spiritual health and well-being in home economics* (Figure 5) where the bluest of trophy words and phrases (specialised discourses) adorned the entrance to the bower. This gradual process of collecting, sorting, weaving and placement of concepts, themes, words and phrases ultimately led to the research outcome: *the Essential Essence of Spiritual Health and Wellbeing in Home Economics Model* (see Deagon, 2013, p. 329–331). To this effect, the SBB was found to be a useful and effective tool for maintaining a prolonged focus on the topics and explaining researcher behaviours.

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Healthy eating for adolescent mental health

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Abstract

Many cases of mental illness appear for the first time in adolescence, making it an important stage for mental health prevention and intervention. Though many factors influence mental health, diet is a readily modifiable behaviour with known links to mental health. Poor quality diet is associated with poor mental health and, conversely, a good quality diet is associated with a reduced risk for common mental disorders, particularly depression. The biological pathways that may explain these relationships are now beginning to be understood, and this paper reviews current evidence on diet-depression association in adolescence. Given that adolescence is an important period for establishing lifelong healthy behaviours, creating and implementing practical dietary public health strategies for adolescents may be greatly beneficial for mental health during adolescence, and through adulthood.

Introduction

Adolescence is a period of rapid changes, both socially and biologically. Half of lifetime psychiatric illnesses appear for the first time in adolescence (1), and these can result in poorer achievement, lower quality of life, and mental illness in adulthood (2, 3). During this period, determinants of health such as poor diet and reduced physical activity, academic difficulty, bullying, drug and alcohol use, and family conflict start to appear (4). Adolescence presents a unique window of transition between childhood and adulthood, where lifelong, adult health behaviours are being established and the potential for influencing future health is great (5).

Forming healthy habits, such as being physically active, avoiding smoking and substance use, and eating well, lays the foundation for optimal physical health, and equally so for mental health. Mental health problems, from anxiety to schizophrenia, affect approximately 14% of adolescents under the age of 18 in Australia (6). While there are many intrinsic factors that contribute to mental disorder vulnerability, nutrition is particularly important for optimal brain development and function (7). There is good quality evidence to suggest that a healthful diet in adolescence is protective against mental disorders both in adolescence (8), and through

to adulthood (9, 10). Diet is a key, modifiable risk factor for mental health in the developmentally significant stage of adolescence, and this paper provides an overview of best academic evidence to date.

Evidence of diet-depression association in adolescents

There is now a known relationship between eating patterns and mental health in adults, and data on adolescents is continuing to emerge. Evidence shows that there have been radical changes in adolescent diets in the past 15 years (11). While previous nutrition and mental health research focused on the role of specific nutrients on mental health (i.e. omega-3s, iron, zinc) (12), researchers now favour assessing dietary patterns as whole, which better captures the way in which different foods and nutrient groups interact.

There are several large-scale studies within Australia focusing on the diet-mental health relationship in adolescents. Researchers from the Western Australian Pregnancy Cohort (Raine) Study (13) collected food-frequency data from 1325 adolescents, identifying two main dietary patterns;

Western and Healthy. These dietary patterns are often identified in nutrition research; a healthy diet is typically characterised by fresh fruits and vegetables, whole grains, fish and in some cases, moderate dairy and meat, whereas Western diets are composed of highly processed, low nutrient foods. The researchers also assessed behaviour. This is often used to characterise mental health status in younger people. They found that higher internalizing (withdrawn/depressed) and externalizing (delinquent/aggressive) behaviour scores were significantly associated with a Western dietary pattern. Further, better behavioural scores were significantly associated with higher consumption of leafy green vegetables and fresh fruit (13). Similar results were found within the Australian Healthy Neighbourhoods Study, where researchers assessed 7114 adolescents aged 10–14 years on dietary and mood parameters. Lower adherence to healthy foods, and greater consumption of processed or unhealthy foods was associated with increased odds of reporting symptomatic depression (14). These findings remained after controlling for potential confounders such as socioeconomic status, and education level, which highlights the independent contribution of diet quality to mental health. Researchers from the It's Your Move project, a component of the Obesity Prevention in Communities (OPIC) Study (15) to implement and assess health interventions, collected self report dietary and emotion data on 2991 adolescents from 12 schools in the Barwon South Western region in Victoria. Diet quality was found to be associated with mental health both cross-sectionally and prospectively, and dietary improvements were reflected by improvements in mental health. Further, reductions in quality of diet were associated with poorer psychological functioning at follow up, and the

hypothesis that poor quality diet was a reflection of poor mental health was not supported (16).

These findings are supported by study findings from around the world. Norwegian aged 12–13, who consumed a healthy and varied Norwegian diet were less likely to have indications of psychiatric conditions, whereas young adolescents with high scores on junk food and snack food diets were more likely to have indications of behavioural problems (17). These results have been supported by research in Kuwait (18), China (19) and the US (20). Though the ingredients of a 'healthy' or 'traditional diet' vary from country to country, results have consistently shown a positive association between these whole food dietary patterns and mental health.

Biological Pathways

It is important to note that nutrition modulates some of the underlying biological pathways that contribute to the risk of mental illness. Researchers have suggested that various mental disorders are related to our immune system functioning (21), often measured by inflammatory cytokines – small signalling molecules that can modulate our immune function. Chronic, low-level immune activation, known as 'systemic inflammation', drives many chronic physical health conditions, such as heart disease and cancer, but is now recognised as a risk factor for depression (22). Importantly, diet is a critical factor driving the health and diversity of gut bacteria, which have also been implicated in mood and behaviour (23, 24). Brain Derived Neurotrophic Factor, a neuro-hormone essential to the health and plasticity of neurons in the brain – is also influenced by diet quality (25). Interestingly, these nutritionally-influenced biological processes are also linked with other

disorders, notably, metabolic disorders (26). Dietary patterns are similarly linked to obesity risk; obesity and mental disorders often co-occur and seem to have a bidirectional relationship. Improvements to diet to promote adolescent mental health may subsequently reduce risk for other inflammatory conditions, suggesting potentially far-reaching benefits of dietary improvement.

Discussion

Adolescent mental health is a public health concern; not only due to the cost and burden incurred during adolescence itself, but because the disruptions to quality of life and overall functioning frequently persist into adulthood. Identifying adolescent mental illness can be difficult, as behaviour and mood changes are a normal aspect of puberty, and it requires age specific diagnostic tools (27). However, dietary patterns have been shown to influence a range of internalising/externalising behaviours and mood states. The benefits of a healthful dietary pattern are seen from pre-conception to old age, and adolescence is a particularly important stage for laying the foundations of health for later in life.

It is clear that there are a variety of factors that influence adolescent mental health, ranging from socioeconomic status, gender, family history and early life trauma, to the presence of other chronic physical conditions. Nutrition, however, is a cost-effective, readily modified means of intervention and prevention, with good evidence to support the reduced risk of mental disorder. There are various reports that adolescents, in Australia (28) and elsewhere (29), are not meeting dietary recommendations and are more frequently choosing energy dense, low nutrient foods. Unfortunately, consuming poor quality foods is not

only directly detrimental to good health, but also it displaces the consumption of whole, healthful foods known to be protective across a range of conditions. Modification of adolescent health behaviour is a challenging undertaking, particularly where eating is entangled in a variety of social complexities such as social norms (30), directed junk food advertising (31), appearance of dieting behaviours (32) and new, relative autonomy in making food choices.

While it's also possible that diet quality is a reflection of mental health status, there is little risk in recommending adherence to a good quality, whole food diet. The evidence for a healthy diet to promote mental health is sound, and as this age group is particularly vulnerable to first-onset mental disorders, adolescence is an important intervention period. Given the great burden of mental disorders from adolescence to old age, developing and implementing feasible, prevention-based public health strategies for the promotion of healthy eating for adolescent health is of great importance.

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The new Healthy Eating Pyramid: Reinforcing the foundation of healthy eating

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Abstract

Nutrition Australia's iconic Healthy Eating Pyramid has inspired healthy eating for over 35 years. The Pyramid is used in education, health and community settings, to provide general education for adults and children alike about the types and proportions of foods to consume as part of a balanced and nutritious diet.

Nutrition Australia first introduced the Pyramid's 'more to less' concept to Australia in the 1980s, to promote a healthy diet based on mostly plant foods, moderate amounts of dairy and meat (and protein foods) and only small amounts of added fats and sugars.

In May 2015, Nutrition Australia launched an updated version of the Healthy Eating Pyramid based on the 2013 Australian Dietary Guidelines. The review included analysing key information from the Guidelines, a brief literature review on food selection models and community consultation.

The new look Healthy Eating Pyramid maintains the original general messages and structure, with a modern look, clearer information about the food groups, and a greater variety of foods depicted within each food group.

The Healthy Eating Pyramid is an optional tool for educators to use alongside the Australian Dietary Guidelines to teach current and key nutrition messages.

Introduction

Nutrition Australia's iconic Healthy Eating Pyramid has been inspiring healthy eating for over 35 years.

The much loved Pyramid is a simple, visual guide to the types and proportion of foods that we should eat every day for good health.

In May 2015, Nutrition Australia launched a new Healthy Eating Pyramid with a fresh look and targeted health messages based on the 2013 *Australian Dietary Guidelines*¹.

The new design depicts whole foods and minimally-processed foods in the five core food groups, plus healthy fats, as the foundation of a balanced and nutritious diet.

The Pyramid is used in a number of education and health settings, including clinical and community health services, primary and secondary schools,

workplaces and health education programs. It is also licensed and reproduced in educational text books and curriculum materials nation-wide, and we sell hundreds of Pyramid-based resources annually, including posters, magnets, games and resources.

The unrivalled success of the Healthy Eating Pyramid as an educational tool over the last 35 years is due to its simplicity, and it continues to be in great demand by publishers, educators, health workers and the general public to encourage children and adults alike to eat a varied and balanced diet

Brief history of the Pyramid

Nutrition Australia first introduced the Healthy Eating Pyramid to Australia in 1980, based on a 'more to less' concept developed in Sweden in the 1970s. It was designed as a simple,

conceptual model for people to use as an introduction to adequate nutrition.

The original Healthy Eating Pyramid separated foods into four layers:

- The large 'Eat More' layer at the base of the Pyramid which depicted all plant-based foods: fruit, vegetables, legumes, grains, breads and cereals.
- The 'Eat Moderately' layer, which depicted milk, cheese and yoghurt, plus protein sources – lean meats, eggs, fish and nuts.



The original Pyramid 1982

- The 'Eat in small amounts' section which depicted added fats and oils on one layer, followed by added sugar at the pointy end.

And while the look of Pyramid has continued to evolve since then, the structure and the proportions of foods depicted have remained largely the same.

HEALTHY EATING PYRAMID



LIMIT SALT & ADDED SUGAR



HEALTHY FATS

MILK, YOGHURT, CHEESE & ALTERNATIVES



LEAN MEAT, POULTRY, FISH, EGGS, NUTS, SEEDS, LEGUMES



GRAINS



VEGETABLES & LEGUMES



FRUIT



ENJOY HERBS & SPICES



CHOOSE WATER



Enjoy a variety of food and be active every day!



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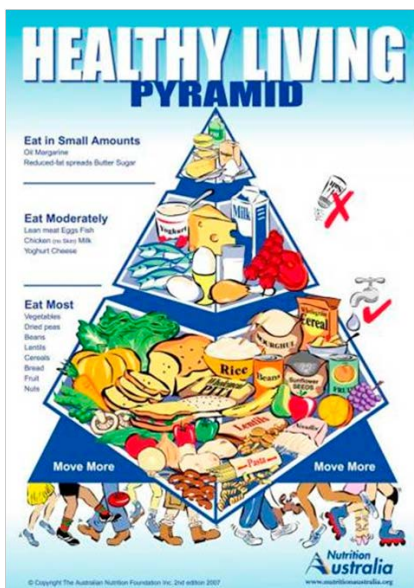


Major redesign 1999

Updating the Pyramid

The Pyramid went under review in 2014, following the release of the 2013 *Australian Dietary Guidelines*, to ensure the visual messages of our flagship educational tool were in line with the current dietary evidence and advice for the Australian population.

The review process included extracting key information from the *Guidelines*, including the recommended types and quantities of foods to consume plus supporting key messages, a brief literature review on the effectiveness of various food selection models, consultation with primary users of the Pyramid and rigorous internal discussion.



Most recent Healthy Living Pyramid 2007

About the new Healthy Eating Pyramid

The 2015 Healthy Eating Pyramid encourages Australians to enjoy a variety of foods from every food group, every day as the foundation of a healthy and balanced diet based on the Australian Dietary Guidelines.

While much time and thought has been put into the new design, the new Healthy Eating Pyramid is essentially a new twist on the original theme:

- Enjoy a variety of foods from the five food groups
- Choose mostly plant-based foods
- Limit added saturated fats, sugar and salt
- Choose water as your main drink

The new Pyramid maintains these original messages, while providing clearer information about how much each individual food group contributes to an overall daily diet.

Nutrition Australia also updated the variety of foods that are depicted within each food group, adding foods such as tofu, quinoa, and soba noodles, to reflect current dietary behaviours and encourage nutritional variety.

What's in the new Healthy Eating Pyramid?

The foundation layers include the three plant-based food groups: *vegetables & legumes, fruits and grains.*

These layers make up the largest portion of the Pyramid because plant foods should make up the largest portion of our diet – around 70% of what we eat!

Plant foods contain a wide variety of nutrients like vitamins, minerals and antioxidants. They are also the main source of carbohydrates and fibre in our diet.

The *vegetables and legumes* segment in particular depicts fresh, frozen and canned varieties, and a wide range of colours to promote eating a variety of fruits and vegetables every day.

The *grains* group depicts mostly whole grains (such as brown rice, oats and quinoa), and wholemeal/wholegrain varieties of bread, pasta, crisp breads and cereal foods (over highly processed, refined varieties).

The middle layer includes the *milk, yoghurt, cheese & alternatives* and the *lean meat, poultry, fish, eggs, nuts, seeds, legumes* food groups.

Foods in the *milk, yoghurt, cheese & alternatives* group primarily provide us with calcium and protein, plus other vitamins and minerals. This food group also refers to non-dairy options such as soy, rice or cereal milks which have at least 100mg per 100ml of added calcium.

Foods in the *lean meat, poultry, fish, eggs, nuts, seeds, legumes* section are our main sources of protein. But each food also provides a unique mix of nutrients, including iodine, iron, zinc, B12 vitamins and healthy fats. We should aim to have a variety of meat and non-meat options from this food group.

The top layer refers to *healthy fats* because we need small amounts every day to support heart health and brain function. We focus on unrefined polyunsaturated and monounsaturated fats from plant sources, such as extra virgin olive oil, nut and seed oils.

Additional messages

Enjoy herbs and spices

Cooking with fresh, dried or ground herbs and spices is an easy way to create foods that suit your tastes, and increase your enjoyment of home-made meals without needing to use salt when cooking or eating.

Choose water

Water is the best drink to stay hydrated and it supports many other essential functions in the body. Choose water as your main drink, and avoid sugary options such as soft drinks, sports drinks and energy drinks.

Limit salt and added sugar

The Healthy Eating Pyramid reminds us to limit our intake of salt and added sugar. This means avoiding adding salt or sugar to food when we're cooking or eating, and avoiding packaged foods and drinks that have salt or added sugar in the ingredients.

The average Australian already consumes too much salt and added sugar and this is linked to increased risk of diseases, such as heart disease, type 2 diabetes and some cancers.

What's changed?

We defined the food groups: to provide greater detail about the proportion each contributes to a balanced diet. This provided a greater level of detail, while still retaining the original Pyramid structure. To achieve this, the large 'Eat more' layer was split into three main food groups: vegetables & legumes, fruit and grains, and the middle 'Eat moderately' layer was split into the milk, cheese, yoghurt & alternatives and the lean meat, poultry, fish, eggs, nuts, seeds, legumes food groups.

Top layer refers to healthy fats only: to share the important message that we do need small amounts of unsaturated fats every day for good health.

Strengthened the 'limit added sugar' message by removing sugar from the top of the Pyramid, and placing outside the Pyramid in the 'limit' section instead.

Added 'enjoy herbs and spices': to encourage people to cook more, experiment with food and find new flavours that they love!

Using the Healthy Eating Pyramid in schools

The Healthy Eating Pyramid aims to convey the general information about how to have a nutritious diet based on the *Australian Dietary Guidelines*, so it's a great companion tool for educators to use alongside the *Guidelines* and the *Australian Guide to Healthy Eating*⁷ for teaching current, and key nutrition messages.

The Pyramid is colourful and visual and uses a simple 'more to less' concept which can be beneficial for young children, culturally and linguistically diverse communities and/or people with lower English literacy.

The *Australian Dietary Guidelines* provide advice on the amounts and types of foods that we should consume every day for good health and to reduce our risk of diet-related diseases. The *Guidelines* provide specific recommendations on the amount of food to consume from each food group as part of a balanced diet, for each age and gender.

The layers of the Healthy Eating Pyramid are based on the recommended food intake for 19–50 year olds according to the *Australian Dietary Guidelines* (2013). However the proportions and placement of each food group are generally

applicable to all age groups from 1–70 years.

Educators can use the Healthy Eating Pyramid as a visual guide to the types and proportions of foods we should aim to eat every day, and to engage students on the key messages described above, and how we grow, buy, prepare and consume individual foods from each food group.

Further information about the Healthy Eating Pyramid and *Australian Dietary Guidelines* is available at www.nutritionaustralia.org, or visit the official *Australian Dietary Guidelines* website www.eatforhealth.gov.au. There you can find the *Eat For Health Educators Guide*⁸, and further resources to promote healthy eating.

The Healthy Eating Pyramid does not replace the *Guidelines*, nor tailored advice from an Accredited Practising Dietitian for personal dietary advice.

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* The layers of the Pyramid are based on the recommended food intake for 19–50 year olds according to the *Australian Dietary Guidelines* (2013). However the proportions and placement of each food group are generally applicable to all age groups from 1–70 years. This advice is intended for the average 'healthy' person. People who are pregnant or breastfeeding, or who have a chronic health condition, food intolerance or allergies should speak to their GP or an Accredited Practising Dietitian for specific dietary advice.

Authors biography

Caitlin Syrett is a communications professional by trade and public health nutrition professional by desire. She has 12 years of experience in the health and non-profit sectors, including working in general practice, corporate health, health promotion, media advocacy, disability and nutrition. She holds a BA (Professional Communication), Graduate Certificate in Human Nutrition and is currently completing her Graduate Certificate of Health Promotion. Caitlin is passionate about working towards a responsible food supply, relevant and objective public information and informed personal choice about food and nutrition. She can be found on Twitter at @CaitlinSyrett.

Camperdown College Food Technology Centre

Julie McPhee
Head of Food Technology,
Camperdown College

Camperdown College has undergone significant transformation in recent years, the most recent being the building of a new Food Technology Centre at the senior campus. This facility has been created on the ground floor of the main building, in an area that was built in 2008 to accommodate a middle years open learning model. This structure has provided opportunity for easy change into a working food facility.

The space has proven to be an excellent site for a new Food Technology Centre, integrating a large and very modern open plan, galley-style cooking area, a technology hub, a café-style dining area, pantry and a classroom.



The kitchen has been designed to accommodate two students to each work station comprised of a sink, range-hood, cooktops and ovens. The galley-style double benches accommodate eight students, four students per side who share three set of drawers with their own open shelving. Another four students are stationed along the width of the north-facing kitchen. Along each wall are the cooktops, ovens, microwaves, open shelving and drawers. The pantry is large with two fridges, freezer, drawers and open shelving.



The laundry, comprising of a front loader washing machine and drier, is located at the southern end of the centre having been built into the cupboard joinery. The students also have access to an automatic hand-washing facility that is alongside to the teacher's work-station.



From the supervision point of view, the kitchen enables easy classroom management and observation of students at work. The students collect their ingredients from the demonstration bench that can be moved with ease and is fully powered.



The teacher's workspace consists of a deep sink and free standing 900mm stove and dishwasher. From the teacher's bench area there is access to an interactive whiteboard.

With these new facilities an expansion of the curriculum will include the Year 9 and 10 Café elective, producing and serving food to the student body. The VCAL students have constructed and planted a vegetable and herb garden for use by food technology students.



The design and building of the Food Technology Centre was a whole of community endeavour. It was wholly school-funded, designed by school staff and constructed by local tradespeople who took great pride in the quality of their work.

The feedback from the Camperdown College students, school community and visitors has been overwhelmingly positive, with acknowledgement that our students now have access to an outstanding facility in which to undertake their studies of Food Technology. This is a very popular subject area for students from Year 7 all the way through to Year 12, with the school's VCE Food Technology participation rates and study scores being a source of great pride.



The Food Technology Centre was formally opened at a ceremony on Wednesday 20 May 2015. Past students, school families and interested members of the community were welcomed at this event. The Centre was opened for viewing between 5.30–6.30p.m. the same evening as part of the College's Education Week Open night and this afforded visitors the opportunity to view other newly refurbished areas of the campus.



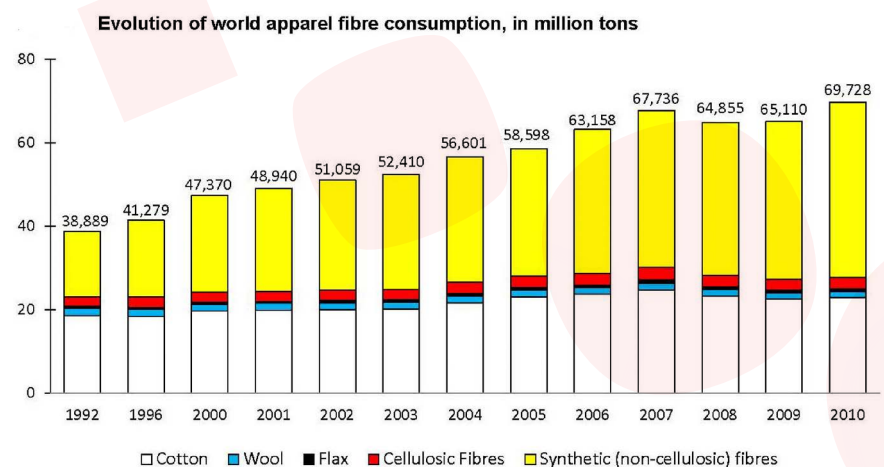
Be sustainable by upcycling natural fibres

Jane Milburn
Agricultural scientist,
communications consultant
Textile Beat

Building connections

Albert Einstein said no problem can be solved from the same level of consciousness that created it. While society is coming to grips with practices that see one-third of the world's food being wasted (FAO 2011), it is likely that clothing waste is of similar proportions.

People, places and the planet are being exploited by contemporary clothing culture. Never in our history have there been so many clothes in the world and every year another 70 million tonnes are produced, according to a global fibre apparel survey.



Source: FAO/ICAC WORLD APPAREL FIBER CONSUMPTION SURVEY July 2013

FAO Global Apparel Fibre Survey 2013

It is a troubling change that only one-third of apparel clothing is now made from natural fibres, the other two-thirds being synthetic fibres which 2011 research by Dr Mark Browne showed are shedding microplastic particles into the wastewater stream with every wash. These particles are entering the food chain and coming back in your sushi.

Another change is that we don't value or care for clothes like we did in past generations, leading to textile waste on a massive scale with many millions of tonnes of clothing going prematurely to landfill or into the global second-hand clothing trade.

There is a coming to consciousness about these issues, sparked by the devastating human tragedy when a Bangladesh factory collapsed two years ago and thousands of underpaid workers were killed or injured while making cheap clothes for Western consumers like us.

While global supply chains continue to churn out such clothing, thoughtful dressers understand that quick and easy trendy fashion comes with invisible price tags of waste, contamination and human suffering.

Fashion Revolution Day on April 24, the anniversary of the Rana Plaza factory collapse, is now a global movement harnessing fashion as a force for good and encouraging individuals to ask questions, find out and make changes.



Moreton Bay College Year 12 students Emma Cook, left, and Savita Sandhu, right, with Jane Milburn.

In the same way the food revolution has raised awareness of where food comes from and its impact on health and environment, the fashion revolution is now raising awareness of where clothing comes from and its social and ecological footprint.

Through my innovative slow fashion enterprise Textile Beat, I embarked on a 365-day Sew it Again project as a journey into creativity, empowerment, thrift, sustainability, ecological health and wellbeing – woven with threads of childhood, education, professional expertise, networks and nature.

Becoming a fashion revolutionary involves taking time to look at the label, ask questions about who made your clothes and what from – and thinking about where they go when you shed

them. We need to make good choices – for ourselves and others.

It is through individual action that we can collectively make changes to reduce the astounding waste being generated by cheap, disposable clothing habits. I wholeheartedly choose upcycling as my way to dress with conscience.

I believe the “greenest” clothes are natural-fibre garments that already exist and are readily accessible through op-shopping, swapping and refashioning.

My model for slow fashion includes empowering individuals to recreate their own wardrobe collection by resewing at home, and dressing with conscience in garments with a good story to tell.

I conduct upcycling workshops and have been a guest at several schools

with sustainable and ethical textiles as part of the Year 12 school curriculum.

Head of Home Economics at Queensland’s Moreton Bay College Delia Stecher invited Jane to share upcycling skills and knowledge with her Year 12 students who spent first semester looking at sustainable and ethical textiles, reflecting on the role consumers have in reducing environmental impact of clothing, and producing an upcycled piece for assessment.

Jane’s Sew it Again project won the 2015 Rural Press Club’s Excellence in Rural Journalism Awards’ Social Media category, with the judges commenting it engaged the community, had a call to action, was transformative, and actually “made a difference in the world”.



Moreton Bay College Year 12 students wearing Fashion Revolution Day looks they upcycled from discarded jeans and business shirts.

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Author biography

Jane Milburn is an agricultural scientist and communications consultant with a proven record of effective advocacy for rural, health and professional groups. Jane is currently developing Textile Beat as an innovative enterprise focused on slow fashion, dressing with conscience and reducing our footprint on the world by upcycling natural-fibre clothing. Jane won the Fairfax Agricultural Media open scholarship to undertake the Australian Rural Leadership Program in 2009 and was named RIRDC Rural Women's Award Queensland runner-up in 2010. During 2014, Jane undertook the 365-day Sew it Again project and now runs workshops and talks on slow fashion and creative reuse of natural fibres.



Moreton Bay College, Head of Home Economics, Delia Stecher with Jane Milburn.

Submission guidelines and contributor notes



Description

The *Victorian Journal of Home Economics* publishes to an audience comprising the members of Home Economics Victoria. Published as *ECHO* since 1978, the *Victorian Journal of Home Economics* is established as one of the leading journals on the subject. Institutions and individuals in many countries subscribe, thus providing an international forum for academic research papers and curriculum-based practice or general interest articles. It aims to provide current and best practice information on the multi-faceted area that is Home Economics.

The scope of the Journal includes:

1. Topic areas: globalisation, food security, local food systems, sustainability, technology, ethical consumption, quality of life, food and nutrition, textiles and clothing, shelter, health and wellbeing for individuals, families and within communities.
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 - Product Design and Technology
 - Food Technology
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The Journal is published twice each year.

Issue	Deadline
April	9 February
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Authors may submit their manuscripts by email at any time prior to the deadline/s.

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Before photographs can be published, authors must confirm that consent has been obtained from individuals whose images are portrayed in photographs.

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Use plain English, suitable for a broad audience. Avoid using jargon and clarify local terminology for an international audience. Use non-discriminatory language.

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If an article is being submitted for peer-review, authors should create a Title Page file from the original manuscript and remove all identifying information from the text and document properties.

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In a separate document please provide a brief (less than 100 words) paragraph for each author, including:

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Pendergast, D 2001, *Virginal mothers, groovy chicks and blokey blokes: Rethinking Home Economics (and) teaching bodies*, Australian Academic Press, Sydney.

Journal articles

Author, initial/s year, 'Title', Journal, vol.#, no.#, page numbers.

E.g.

McGregor, SLT 2007a, 'Consumer scholarship and transdisciplinarity', *International Journal of Consumer Studies*, vol.31, no.5, pp. 487–495.

Online journal articles

Author, B year, 'Title of article', *Title of Journal*, volume number, issue number, page numbers if given, date retrieved, name of database or <URL>.

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Newcomer, JW 2007, 'Metabolic syndrome and mental illness', *The American Journal of Managed Care*, vol.13, no.7, pp. 170–177, www.ajmc.com/publications/supplement/2007/2007-11-vol13-n7Suppl/Nov07-2657pS170-S177, retrieved 18 June 2015

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Mission statement

Our purpose is to promote skills for life to achieve optimal and sustainable wellbeing for individuals, families and communities. By promoting wellbeing, encompassing health, we aim to prevent and/or control disease such as obesity and type 2 diabetes by providing teachers, students, parents and wider school communities with education and information.

Objectives

- Promote skills for life, including home economics, to achieve optimal and sustainable wellbeing for individuals, families and communities.
- Promote health and wellbeing, aimed at preventing diseases, specifically obesity and type 2 diabetes.
- Provide education and information about health and wellbeing through education programs, resources, publications, advocacy and consultancy.
- Support research into health and wellbeing including the provision of awards and scholarships.
- Work in partnership with relevant health and education bodies, government departments, organisations and industry.

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