Proceedings of the

Canadian Symposium XVII

*Issues and Directions for Home Economics/Family Studies/*

*Human Ecology Education*

March 3-5, 2023

*Hosted by the Saskatchewan Home Economics Teachers Association (SHETA),*

*Saskatoon, Saskatchewan, Canada*

Editors:

Melissa Bauer Edstrom

Kerry Renwick

**Table of Contents**

[About the Canadian Symposium: Issues and Directions in Home Economics / Family Studies / Human Ecology 3](#_Toc161734891)

[Colleen Grover 3](#_Toc161734892)

[Editorial: Looking for a new normal 5](#_Toc161734894)

[Dr. Kerry Renwick 5](#_Toc161734895)

[Peer Reviewed Section 7](#_Toc161734896)

[Experiences from a food education program utilizing a hydroponic shipping container farm: The importance of community connections 8](#_Toc161734897)

[Gabrielle Edwards 8](#_Toc161734898)

[Building food literacy projects through teachers' practice architectures 17](#_Toc161734915)

[Dr. Kerry Renwick 17](#_Toc161734916)

[Getting to Know Local Farmers Can Enhance](#_Toc161734926) [Home Economics Food Programs 22](#_Toc161734927)

[Renée T. Wiebe, M.Ed. 22](#_Toc161734928)

[Other papers 29](#_Toc161734929)

[A Girl and Her Home: What the 1956 Saskatchewan home economics curriculum guide tells us about women and the home 30](#_Toc161734930)

[Amanda Jurgens, M.A., B.Ed. 30](#_Toc161734931)

[Exploring Maker Education in Home Economics 40](#_Toc161734932)

[Chantel Mack 40](#_Toc161734933)

[Food Literacy Progression: A Framework of Food Literacy Development](#_Toc161734935) [for Children and Youth from 2-18 Years 52](#_Toc161734936)

[Joyce Slater, RD. PHEc, MSc, PhD 52](#_Toc161734937)

[From Future Proofing to Future Education in Home Economics Education 57](#_Toc161734938)

[Dr. Mary Gale Smith 57](#_Toc161734939)

[Issues and Directions in Home Economics Education: The HEEL Papers 65](#_Toc161734940)

[Dr. Mary Gale Smith and Dr. Mary Leah de Zwart 65](#_Toc161734941)

# About the Canadian Symposium: Issues and Directions in Home Economics / Family Studies / Human Ecology

## Colleen Grover

## Summarized from HEIE News, June 1997, p.2

The impetus for the Canadian Symposium began in the spring of 1990 when Dr. Linda Peterat invited me to come to the University of British Columbia and share what was happening in home economics education in Alberta with home economics educators in Vancouver. Feedback from those in attendance was very positive and they recommended that we meet on a yearly basis and invite other home economics educators to join us. Both Linda and I liked the suggestion and began to formulate plans for the next meeting. We decided on the symposium format because we believed that if we were to meet again that we needed some guiding questions for the talks and that we should provide an opportunity for others by making available proceedings after the Symposium.

We decided that we should invite home economics educators from the universities, the ministries of education, school system supervisors, and presidents of home economics councils of teachers’ associations to our next meeting. While discussing our plans, we decided that in addition to British Columbia and Alberta, perhaps Manitoba and Saskatchewan would like to join us, and then, we got the idea that if we held the Symposium in Manitoba, we could invite all the people we had targeted from every province. Linda then contacted Joyce McMartin in Winnipeg to see what she thought of our plan and to see if she would be willing to assist by looking after the arrangements for the meeting rooms, hotel, and food. Joyce agreed and the first Canadian Symposium: Issues and Directions for Home Economics/Family Studies Education was held in March, 1991 in Winnipeg with approximately 40 home economists in attendance. Several beliefs guided this symposium from the beginning: 1) that all in positions of leadership, including teachers, should be invited to attend; 2) that most attending will also present so the symposium will consist of talking and listening to each other, not outside experts; 3) that the cost of attending and registration be kept minimal by seeking sponsors for the Symposium and using medium priced accommodation; 4) while the numbers of those in attendance may be low, proceedings should be published soon after the Symposium and made available to all for discussion; 5) that action planning to address issues be part of the Symposium so there is some follow through from the discussions.

|  |  |
| --- | --- |
| Symposium I, March, 1991, Winnipeg Symposium II, March, 1993, Calgary Symposium III, March 1995, Toronto Symposium IV, March, 1997, Edmonton Symposium V, March, 1999, Ottawa Symposium VI, February, 2001, Winnipeg Symposium VII, March, 2003, VancouverSymposium VIII, March, 2005, Halifax  | Symposium IX, March 2007, TorontoSymposium X, March, 2009, Saskatoon Symposium XI, March 2011, Winnipeg Symposium XII, February 2013, Vancouver Symposium XIII, February 2015, Winnipeg Symposium XIV, February 2017, LondonSymposium XV, February 2019, Vancouver |

Following each Symposium, each registrant has received a copy of the Proceedings. The symposia continue to be organized as long as people feel the need to meet and believe that good things happen as a result of the meetings.

Dr. Marlene Atleo of the University of Manitoba tweeted “…home ec teachers … have to start writing about what they do.” These proceedings are an example of the kind of writing she is talking about. We hope they will inspire you to write and present the work you do. Please note that the final papers prepared by the presenters for publication in the proceedings are in alphabetical order by author.

# Editorial: Looking for a new normal

## Dr. Kerry Renwick

Associate Professor | Home Economics Education

Department of Curriculum and Pedagogy

University of British Columbia

The timing of this Symposium meant that the organising committee could contemplate the possibilities of an in-person event. However, feedback from participants of the previous Symposium with its fully online delivery was well received for financial and participation perspectives. Being virtual meant that those living and work in more distant locations did not have to pay for travel or accommodation. Colleagues could attend together rather than having to negotiate who could attend, an aspect supported by the reduced registration rate. On the other hand, participants did comment on how they missed being able to meet up with colleagues rather than across a computer screen.

With these considerations in mind the organising committee – Melissa Edstrom, Joe Tong, Chrissy Smith, and Kerry Renwick (BC) in partnership with Michelle Hardy and Jocelyn Dupuis (SK) decided to offer a hybrid conference where attendance could be either in-person or on-line. From the participants’ perspective, this enabled participation in a way that suited their circumstances – financial and locations. For the organising committee it meant ensuring the streaming of the presentations in a way that would not disadvantage virtual attendees. And for the presenters, they had to think about their presentations in a way that was more like working on television than the classroom or lecture theatre. Interactive sessions with participants also needed to be managed such that the virtual attendees could make their contributions. All of this work is not undertaken easily however the technical skills of Joe Tong (BC) and Michelle Hardy (SK) were brought to the fore, ensuring that all ran smoothly.

The Symposium continues to be supported by CHEF and the Gwen E. Leslie Memorial Award lecture was held on the Friday evening. Dr. Priscilla Settee is an Indigenous scholar at the University of Saskatoon. Her work includes the importance of acknowledging and promoting community based Indigenous food systems both locally, nationally, and internationally, and its link to the health of First Nations people and the environment. Dr. Settee’s published work centers around food security and sovereignty for Indigenous communities including those throughout the globe as an essential part of their wellbeing. These topics are of increasing importance to home economics as a profession and to those working in school contexts. Dr Settee’s presentation was well received by the attendees at the lecture.

As always time brings change, Melissa and Joe have been serving on the organising committee for the last ten years and it is their time to step back in their leadership roles on this committee and share the work with new team members. The service that both Melissa and Joe have provided is immeasurable and their sage advice and insights will be missed as they step down in terms of their presence on this committee. Of course, both Melissa and Joe are continuing in their service to the home economics profession through their engagement with the subject association in BC. As a part of the change Chrissy joined the committee late in 2022 and Paula Aquino joining in April 2023. Both Chrissy and Paula bring substantial experience as educators in home economics classrooms and are eager for the challenge.

These proceedings are a record of the event and add to the growing record of the Symposium since 1997. The papers presented here have been divided into two sections i) where papers have been refereed and ii) those that have been submitted for the record. All of these papers showcase the range of work being undertaken within the home economics field. In looking through these papers it is possible to see contemporary topics that are being considered by those investigating current practices and concerns. Home economics continues to be vibrant and relevant as we move towards the end of the first quarter of the 21st Century.

# Peer Reviewed Section

# Experiences from a food education program utilizing a hydroponic shipping container farm: The importance of community connections

## Gabrielle Edwards

University of British Columbia

*Research Funding*: Social Sciences and Humanities Research Council of Canada (SSHRC)

## Abstract

Hydroponic shipping container farms (HSCF) are an emerging tool within educational settings that can be used to increase the availability of healthy and local produce and create opportunities for young people to connect with food systems and the environment. A year-long case study was conducted at a school in BC that was in its first year of implementing a HSCF program using a whole school approach. Whole school approaches recognize that schools are cultural environments where students live and learn, and that student learning occurs both inside and outside of the classroom. When focusing on sustainability, these approaches aim to establish a culture of sustainability by aligning all aspects of student learning, including the formal curriculum, school environment, and connections to the wider community. Although this study explored all aspects of the whole school approach in relation to the HSCF program, this paper focuses on the community dimension of the framework. The study found that the community connections forged through the visibility of the HSCF program in the community strengthened the school community’s own commitment to sustainability by sparking sustainability-related actions not directly tied to the HSCF’s activities. These actions included school-wide composting programs and supporting local food banks. Having a well-connected community champion also contributed to the success of the program. However, having too many outside voices made it difficult for the school to focus on their own goals for the HSCF program. This study highlights the potential of school food or sustainability programs to inspire school-wide action and change when a whole school approach is embraced, and strong community linkages are formed.

## Background

Hydroponic shipping container farms (HSCF) are an emerging educational tool that can be used to connect young people to food systems and the environment, as well as increase the availability of local produce in schools (Wagner et al., 2020). HSCFs are shipping containers that have been repurposed to include a soilless, hydroponic food production system. These units have a controlled hydroponic environment that uses humidity controls, LED lighting, temperature regulators, and software to monitor and optimize growing conditions. Due to the newness of using HSCF in educational settings, there has been limited research exploring their use in schools (Juarez, 2018; Wagner et al., 2020). There are similarities between HSCFs and other tools used to deliver food education programming, including school gardens and school farms. Therefore, the existing literature in these areas can provide a framework in which to situate this study.

School gardens have been shown to have a variety of benefits, including increased academic performance (Wells et al., 2015), increased fruit and vegetable intake (Langellotto & Gupta, 2012), improved student diet (Davis et al., 2011), and increased connection with nature (Passy, 2014). Although there are many potential benefits of school gardens, there are also several identified barriers to school garden success, including but not limited to a lack of administrator support, a lack of garden-based curriculum, a lack of time, a lack of finances, poor integration within schools, and a lack of community connection (Burt et al., 2018; Hoover et al., 2021). Specifically, research exploring strategies to engage the wider community in programming has been identified as a major research gap (Burt et al., 2019). Well-integrated programs are essentially following a whole school approach to education and, when integrated successfully, can “not only serve the pupils but also the wider community and society itself (Gonsalves et al., 2020, p. 4).

Whole-school approaches recognize that all aspects of a school impact learning and, therefore, try to minimize the gap between promoted values and values in action (Posch, 1993). These approaches not only focus on the school curriculum and environment but also require connection to the broader community and involvement by teachers, students, parents, and administrators (Shallcross, 2006). Although there are several whole school approach frameworks (see for example Rose et. al., 2023; Shallcross, 2006, Tilbury & Galvin, 2022), this study chose to use the Health Promoting Schools framework (HPS) (WHO, 1996) as other frameworks lack uniformity across the literature. The HPS framework is composed of the following three dimensions:

|  |  |
| --- | --- |
| Dimension | Definition |
| School curriculum (curriculum/learning) | Health education topics are promoted through the formal school curriculum |
| Ethos and/or environment | Health and well-being of students are promoted through the ‘hidden’ or ‘informal’ curriculum, which encompasses the values and attitudes promoted within the school and the physical environment and setting of the school |
| Families and/or communities | Schools seek to engage with families, outside agencies and the wider community in recognition of the importance of these other spheres of influence on children’s health |

*Table 1: Health Promoting Schools Framework (WHO, 1996)*

Together, these three dimensions represent a holistic approach to health promotion. Although this research was not focused on health promotion per se, this framework was chosen due to clarity and consistency in categorizing research themes.

This paper aims to address the identified gaps in the literature by exploring the experiences of participants involved in a HSCF program that utilised a whole school approach to integrate the program into the school. Specifically, this paper will focus on strategies that the school used to engage the whole school and wider community in their HSCF program.

## Research Setting

This research took place throughout the 2021–22 school year at a middle school in a large population centre in British Columbia, Canada. The student population consisted of approximately 800 students in grades 7 through 9 (aged 12–15). In 2019, the school received approximately $250,000 CAD in funding from a Canadian charity to purchase and install a HSCF on school property. The funding also covered five years of financial support for running the farm. Although the school received funding in 2019, the farm was not installed on school property until the summer of 2020. Due to the COVID-19 pandemic, the school was not able to fully utilize the farm in the 2020–21 school year. Therefore, the 2021–22 school year represented the first year that the school was able to use the entire farm for production as well as involve students in farm activities. Teachers and administrators at Browning Middle School had plans to integrate the farm into the school using a whole school approach and envisioned a farm program that was integrated into formal learning, used to model a culture of sustainability within the school, and connected to the wider community.

One teacher, Mrs. Smith, was the lead teacher running the farm. Student involvement in farm activities primarily took place through a grade 9 class called Environmental Sustainability. This class had a purposefully small number of students (eight) to ensure all students had the opportunity to work in the farm. This class was responsible for the day-to-day operations of the farm as well as planting, transplanting, harvesting, packaging produce grown in the farm, and cleaning activities. Other students had more limited opportunities to become involved in the farm through a program where teachers could sign up their classes to be involved in planting and harvesting produce from the farm.

## Methodology

This paper is based on a year-long case study that occurred throughout the 2021–22 school year as part of the researcher’s doctoral work (Edwards, 2023). This study employed multiple qualitative and ethnographic methods, including semi-structured interviews with students, teachers, administrators, and community partners and participant observations (Cohen et al., 2011; Hatch, 2002). In total, 19 individuals participated in this research. The participants consisted of teachers, school administrators, students, and community partners. Table 2 summarizes the number of interviews with each participant type.

|  |  |  |
| --- | --- | --- |
| Participant Type | Number of Participants | Number of Total Interviews |
| Environmental Sustainability Grade 9 students | 8 | 19 |
| Lead farm teacher | 1 | 2 |
| School administrators | 2 | 3 |
| Teacher candidate | 1 | 1 |
| Other teachers | 4 | 4 |
| Community partner | 1 | 1 |
| Charity employees | 2 | 1 |

*Table 2: Number of interviews by participant type*

Semi-structured interviews occurred with participants and were spaced out throughout the school year, occurring once, twice, or three times throughout the year. These interviews occurred at the beginning, middle, and end of the study (November–December 2021; March 2022; June 2022). The interviews were conducted both in-person and online and focused on exploring participants’ experiences with the HSCF program. The interviews ranged from 5 minutes in length to 1 hour and 20 minutes, depending on the participant and how much they were able to share. Participant observations occurred throughout the duration of the study and were used to give meaning and context to interviews.

Following data collection, the interview audio files were transcribed and uploaded to NVivo, a computer-assisted qualitative data analysis software. The researcher then conducted a thematic content analysis using NVivo and Braun & Clarke’s (2006) six-step method for conducting thematic analysis. Codes were identified based on themes that frequently emerged from the interview transcripts as well as themes that seemed significant based on the researcher’s observations within the school environment.

The results presented represent observations from the researcher that were originally taken as field notes as well as participants’ experiences as revealed in their interviews throughout the year. Although the full extent of this research focused on all aspects of the whole school approach, this paper will focus on the families and/or communities dimension and significant themes that emerged in that area.

## Results

Interview questions and participant observation sought to understand the influence of community connections on the operations of the school farm and the school’s overall commitment to sustainability. The following are the key themes that emerged in that area.

## *Visibility in the Community*

Due in part to the high-tech and novel nature of the HSCF, members of the school community were very excited and proud to have the farm located at their school. As one school administrator, Mark, stated:

Anytime that we can bring something new and exciting to school and get students who say, “Oh, we have a modular farm,” that brings pride to the school and students have to … have a sense of belonging, have a sense of safety in a school. But if you can also build that sense of pride, you know, that’s really great for a school.

Due to this excitement, students, teachers, and administrators were incredibly vocal about the presence of the farm, which resulted in several opportunities for media exposure, including radio interviews, newspaper articles, and being featured on local televised news stations. As one teacher, Molly, said, “it’s so cool because we’ve been on the news for the farm a few times.” This media exposure led to the farm being highly visible and known within the community, which, in turn, led to several important community connections.

## *Community Connections*

The high level of visibility in the community, the farm was able to develop several important community connections that contributed to student learning, reinforced the school’s commitment to sustainability, and helped the farm program overcome some of the challenges they faced. Forming these community connections was an important objective for the school, which was highlighted when Mark, a school administrator, stated that one goal of the farm was “to make a difference in our community and share with the community.” These connections were generated both by individuals within the school reaching out to the community as well as by community businesses and organizations contacting the school. Several of these community partnerships developed throughout the 2021–22 school year. For example, the farm was able to develop a connection with a local company that raised insects to be used as a form of protein in foods consumed by humans. The farm and the insect company were able to develop a co-benefitting arrangement whereby the insect company collected the farm compost at no cost to the school and, in exchange, was able to use the farm’s compost as a source of food for the insects.

Not only did the connection with the insect company allow easy and free removal of farm compost, but the composting program that started solely in the farm turned into a school-wide composting program. Mrs. Smith highlighted this fact when she stated, “[the insect company] also initiated a compost program in our school that was nonexistent, probably for the last seven or eight years.” Therefore, community connections not only provided benefits for the farm but also helped spread awareness of, and commitment to, sustainable practices within the whole school environment.

## *Community Champion*

In addition to having strong community support in the 2021–22 school year, the involvement of a committed and well-connected community champion proved to be an important element to the farm program’s functioning. This community champion was a local grocery store owner (Sam), who became connected to the farm through personal connections with school administration. Sam helped the school overcome one of their largest barriers: a lack of refrigeration space to store harvested produce. Once aware of that barrier, Sam offered to sell farm produce in his grocery store. The school was responsible for transporting the produce to the grocery store, but once there, the grocery store packed, labeled, and sold the produce. 100% of the proceeds generated from the sold produce were given back to the school to reinvest in the farm. This partnership allowed produce that couldn’t fit in the school’s refrigeration to be stored in a cool location at the grocery store being sold and, therefore, allowed the farm to run at full capacity.

In addition to selling farm produce in his store, Sam acted as a connector between the school and other community businesses and organizations involved in the food sector. When describing his involvement in the farm, Sam commented that he:

Connect[s] people with the right connections, allowing people to experience different things. Some of it is monetary where we can we connect people to the finance. We're trying to support them (the school) to the refrigeration unit in order to make it a success even or make it more of a success than what it already has started.

As a grocery store owner, Sam was well connected in the community. Sam was able to use these connections to suggest potential collaboration opportunities between the farm and some of these connections. For example, the Environmental Sustainability 9 class went on two field trips in the fall of 2021 because of connections Sam helped establish. One of these trips was to a local farm that grew food for a city-wide backpack lunch program and the other was to a local organic orchard. Both field trips afforded students the opportunity to learn about in-ground methods of food production that they could compare to the relatively high-tech HSCF they worked with at the school.

The connection with the farm growing food for a city-wide backpack lunch program proved to be invaluable, as that organization was able to find Browning Middle School a second refrigerator that the school could install to store harvested farm produce. Although this fridge was not yet installed in the 2021–22 school year, there were installation plans for the beginning of the 2022–23 school year. As Mrs. Smith, the lead farm teacher, said, “that connection has gotten us another fridge.” Therefore, the connections that Sam was able to make between the school and community members not only gave students valuable learning opportunities but also helped the farm overcome significant challenges that they were facing.

## *Pressure from the Community*

Although the farm’s visibility in the community led to several positive connections, this visibility also led to many voices approaching the school with ideas about how the farm could be used according to their own thoughts. Mrs. Smith highlighted this community interest when she said that “I would say probably once a month I have somebody who stops by and would like a little peek in the farm and a tour.” Mark, a school administrator, further emphasized the broader communities’ interest in the project when he stated:

It’s lots of curiosity and lots of people asking to help … people come in with different ideas and opinions … And we’ve kind of kept them at bay because the problem is we don’t want to have too many chefs in the kitchen.

This abundance of outside voices at times made it difficult for teachers and administrators within the school to stay focused on the school’s own goals for the farm. A specific example of the influence outside voices had on farm activities occurred in fall 2021, when major flooding in BC washed out all roads connecting the Greater Vancouver Area to the rest of Canada. The disruption to supply channels caused a shortage of locally produced foods in several areas of BC as well as panic surrounding food security, particularly for vulnerable populations. During this time, Mrs. Smith received several emails from concerned community members inquiring as to how the school farm was going to assist with the situation. Additionally, students from a nearby secondary school reached out to see if the farm, with their assistance, could plant produce that could be harvested over the Christmas break and donated to a local food bank. Mrs. Smith agreed to their request and, over the break, harvested greens that were donated to the local food bank. The interested students helped with the planting and harvesting of the produce.

## Discussion and Conclusion

This study sought to explore how a school food literacy educational program formed and managed community partnerships, as well as potential benefits those partnerships provided to the program. Similar to one school in Wagner et al.’s (2020) study where “a public secondary school noted that the use of their HSCF on campus has enabled community building and new partnerships with the local food bank, which in turn resulted in a ‘buzz in enthusiasm in the school community’” (p. 226), the HSCF at Browning Middle School enabled community building which created enthusiasm and a renewed commitment to sustainability within the school community. Visibility of the HSCF program through local media outlets was key to these high levels of community involvement. Connections to the wider community afforded several benefits to both the school farm and the school itself, including the initiation of a school-wide composting program. Having a well-connected community champion was crucial for overcoming barriers the farm faced, such as lack of refrigeration space. This finding is in line with other studies that emphasize the importance of supportive champions within the community for school-based initiatives related to health (Skovgaard et. al., 2024). However, previous literature has also highlighted that leadership at the school and district levels, the presence of a school-based partnership coordinator, and sufficient financial resources are crucial for the long-term success of school-community partnerships (Valli et. al., 2016). Therefore, without some of these other key elements in place, the longevity of the community partnerships at Browning Middle School may be at risk.

While strong community connections provided advantages while establishing Browning Middle School’s farm, having too many outside voices attempting to influence farm programming made it difficult to focus on firmly establishing the farm within the school itself. For example, although the farm’s contribution to the local food bank over the Christmas break was admirable, adjusting the farm schedule to accommodate this harvest resulted in Mrs. Smith volunteering multiple hours of time over the Christmas break to ensure the farm was running smoothly. As Gonsalves et al. (2020) noted, “the good intentions of ‘outsiders’ to link schools [gardens] with a host of other activities […] must be screened carefully to ensure that teachers and students are not unduly burdened” (p. 4). As Mrs. Smith was the primary person running the farm, fulfilling requests from the community would require Mrs. Smith to volunteer additional time, which could in turn lead to her burning out. Similar results regarding teacher burnout have been found in previous studies (see, for example, Rojas et al., 2022). Although Mrs. Smith was successfully running the farm primarily by herself in the 2020–21 and 2021–22 school years, the sustainability of that operating model should be questioned.

When initiating a food educational program within a school, such as a school farm or garden, being vocal about the presence of the initiative and promoting it through local media channels can help garner support from the wider community. This, in turn, could help embed the program within the school environment and increase the likelihood of the program being sustained over time. Additionally, establishing a relationship with a community champion who is well-connected in the community can lead to further partnerships that could both enhance student learning and help schools overcome barriers they may face while running their program. However, schools should have firmly established goals and timelines for their program before creating community visibility, as this visibility could lead to a cacophony of outside voices attempting to direct farm programming.

**References**

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

Burt, K., Burgermaster, M., & Jacquez, R. (2018). Predictors of School Garden Integration: Factors Critical to Gardening Success in New York City. *Health Education & Behavior: The Official Publication of the Society for Public Health Education*, *45*(6), 849–854.

Burt, K., Lindel, N., Wang, J., Burgermaster, M., & Fera, J. (2019). A Nationwide Snapshot of the Predictors of and Barriers to School Garden Success. *Journal of Nutrition Education and Behavior*, *51*(10), 1139–1149.

Cohen, L., Manion, L., & Morrison, K. (Eds.). (2011). *Research Methods in Education* (7th Edition). Routledge.

Davis, J. N., Ventura, E. E., Cook, L. T., Gyllenhammer, L. E., & Gatto, N. M. (2011). LA Sprouts: a gardening, nutrition, and cooking intervention for Latino youth improves diet and reduces obesity. *Journal of the American Dietetic Association*, *111*(8), 1224–1230.

Edwards, G. (2023). *Participant experiences implementing a hydroponic shipping container farm program utilizing a whole school approach.* [Unpublished doctoral dissertation]. University of British Columbia.

Gonsalves, J., Hunter, D., & Lauridsen, N. (2020). School gardens: Multiple functions and multiple outcomes. In *Agrobiodiversity, School Gardens and Healthy Diets* (pp. 1–32). Routledge.

Hatch, J. (2002). *Doing qualitative research in educational settings*. State University of New York Press.

Hoover, A., Vandyousefi, S., Martin, B., Nikah, K., Cooper, M. H., Muller, A., Marty, E., Duswalt-Epstein, M., Burgermaster, M., Waugh, L., Linkenhoker, B., & Davis, J. N. (2021). Barriers, Strategies, and Resources to Thriving School Gardens. *Journal of Nutrition Education and Behavior*, *53*(7), 591–601.

Juarez, M. I. (2018). *A feasibility study of hydroponic shipping container farms in businesses and schools: Identifying the influential factors, benefits, and challenges*. Texas State University.

Langellotto, G. A., & Gupta, A. (2012). Gardening increases vegetable consumption in school-aged children: A meta-analytical synthesis. *HortTechnology*, *22*(4), 430–445.

Passy, R. (2014). School gardens: teaching and learning outside the front door. *Education 3-13*, *42*(1), 23–38.

Posch, P. (1993). *Approaches to values in environmental education*. Scottish Consultative Council on the Curriculum.

Rojas, A., Black, J. L., Orrego, E., Chapman, G., & Valley, W. (2022). *Insights from the Think&EatGreen@School Project : How a community-based action research project contributed to healthy and sustainable school food systems in Vancouver*. Canadian Association for Food Studies / L’Association canadienne des études sur l'alimentation. https://doi.org/10.14288/1.0407067

Rose, K., O’Malley, C., Lake, A. A., & Lalli, G. S. (2023). “Doing school food!”: a practical toolkit for adopting a whole school food approach. *Perspectives in Public Health*, 17579139231185302.

Shallcross, T. (2006). Whole school approaches, forging links and closing gaps between knowledge, values and actions. In T. Shallcross, J. Robinson, P. Pace, & A. E. J. Wals (Eds.), *Creating Sustainable Environments in our Schools* (pp. 29–46). Trentham Books Limited.

Tilbury, D., & Galvin, C. (2022). *Input Paper: A Whole School Approach to Learning for Environmental Sustainability*. European Commission.

Wagner, N. C., Juarez, M., & Morrish, D. (2020). A Feasibility Study of Hydroponic Shipping Container Farms in Schools: Identifying the Influential Factors, Benefits, and Challenges. *NACTA Journal*, *65*, Nov 2020-Dec 2020.

Wells, N. M., Myers, B. M., Todd, L. E., Barale, K., Gaolach, B., Ferenz, G., Aitken, M., Henderson, C. R., Tse, C., Pattison, K. O., Taylor, C., Connerly, L., Carson, J. B., Gensemer, A. Z., Franz, N. K., & Falk, E. (2015). The Effects of School Gardens on Children’s Science Knowledge: A randomized controlled trial of low-income elementary schools. *International Journal of Science Education*, *37*(17), 2858–2878.

WHO. (1996). *Regional guidelines. Development of health-promoting schools - A framework for action*. World Health Organization.

Yu, F. (2012). *School garden sustainability : major challenges to the long-term maintenance and success of school garden programs* [University of Delaware]. https://udspace.udel.edu/handle/19716/12045

# Building food literacy projects through teachers' practice architectures

## Dr. Kerry Renwick

Associate Professor | Home Economics Education

Department of Curriculum and Pedagogy

University of British Columbia

## Introduction

Critical food literacy research in various forms has been undertaken at the University of British Columbia since 2010. Findings related to this work have been presented at previous Canadian Symposia. In a paper entitled *Food literacy as a way to live in the world* (Renwick, 2019) considered the use of a 3D approach to literacy to understand practices that are used by young people as they come to understand food as a social practice. In the next Symposium, insights from a Social Sciences and Humanities Research Council (SSHRC) funded grant offered insighted into teacher practices identifying *Who teaches food literacy?* (Renwick, 2021). As the latest paper from this grant the focus has turned to what teachers are concerned about and their motivations for their work within critical food literacy education.

Using practice architectures as the theoretical frame it was possible to explore teachers’ what teachers communicate in their classrooms (Mahon et al., 2017). What teachers conveyed during the research offered insights into their classroom realities as they taught specific content and the associated pedagogical practices. Practice architectures are a way to understand social realities experienced in learning situations utilising three signifiers – doings, sayings and relations. Each signifier represents a specific dimension of communicative action (Kemmis, 2008; Kemmis & Grootenboer, 2008; Kemmis & Smith 2008; Mahon et al., 2017). Table 1 provides the communicative dimensions and provides descriptions for each, and made relevant to food literacy practices.

|  |  |
| --- | --- |
| **Dimension/medium** | **Actions & Praxis** |
| **Cultural-discursive arrangements****Medium - language** | **Sayings:** “environmentally responsible and sustainable” “know where food comes from” and speaking about food systems relevant topics |
| **Material-economic arrangements****Medium - work** | **Doings:** “connecting to the land” “being sustainable consumers” and doing relevant things |
| **Social-political arrangements****Medium - power** | **Relatings:** “understanding how food, land and our wellbeing are intertwined” “being respectful of others” and changing one’s relationship to others and the world in appropriate ways |

*Table 1 Food system education practices (based on Kemmis & Mutton, 2012).*

According to Kemmis et al. (2012) these signifiers ‘hang’ together in distinctive ways to create a ‘project’. These projects are inherently social and are enacted in specific ways within the local, classroom context. A signifier does not exist in and of itself rather it works in conjunction with and because of the others.

*Diagram 1 Food literacy project (source: Kemmis et al., 2014. p.33.)*

Through consideration of the three signifiers it is possible to see how the project demonstrates teachers’ actions as being morally committed and orientated towards food systems education that is transformative. Working through these ideas requires teachers to engage with professional practice in praxial ways where they make judgments about what is ‘right’ both within the classroom and their students’ lives.

## Method

While the work is a part of a larger research this paper explores one question put to K-12 educators in British Columbia between March and August 2020. Thirty-two K-12 teachers responded to a survey and eleven were involved in follow-up interviews. Asking these educators “Why did you decide to become involved in food systems education?” elicited rich responses. Once transcribed these responses were scanned for common themes such as how they go about this work and the values and motivations that guide.

The ethnographic approach used to understand how teachers communicated about food within their classes required close analysis of their statements. The analysis utilized colour coding of the text to identify which signifier was being references by teachers in their statements. Sayings were coded with green, doings with orange and relations with a blue colour. The underpinning praxial concepts held by teachers were coded where motives/actions were identified as pink and individual/communal actions where purple.

## What teachers consider as a food literacy project

Drawing on insights provided by teachers this section explores each of the three signifiers. This approach enables understanding about teachers’ communicative actions in their classrooms. (Kemmis & Grootenboer, [2008](https://www.tandfonline.com/doi/full/10.1080/09650792.2015.1129983?casa_token=teke1cUX82EAAAAA%3AOSwIHh25uDOjAsfvUn49tAI4kA1z-_beDeCUIA2JvmGFAHmGcI-JXI_a5q2BL0OeVR7XVUBAV4qu); Kemmis et al., [2014](https://www.tandfonline.com/doi/full/10.1080/09650792.2015.1129983?casa_token=teke1cUX82EAAAAA%3AOSwIHh25uDOjAsfvUn49tAI4kA1z-_beDeCUIA2JvmGFAHmGcI-JXI_a5q2BL0OeVR7XVUBAV4qu); Mahon et al., 2017). The work being undertaken by K-12 teachers considered a range of food practices that included individual group/familial and broader ideas as they developed critical food literacy with their students. Thus, teachers and students in BC schools were working together to ‘read’ food systems.

### *Doings – material economic arrangements*

In their statements related to this signifier teachers emphasized practice. The following were typical of teachers’ comments about doings.

“it’s important is for them to be learning how to take care of themselves and their own bodies. … … helping to foster with them appreciation for the environment and stewardship of the environment. That they really have ownership over, especially when they grow things themselves.” (SM, elementary school teacher)

“you’re learning responsibility and you’re learning some practical skills but it has the effect of empowering children with that knowledge.” (KK, elementary school teacher)

The teachers spoke about their students developing hands on skills typically through growing and preparing food while also acknowledging that such skills were linked to communal and ecological practices. Teachers also spoke about the complexity of food systems.

#### **Sayings – cultural-discursive arrangements**

Words that conveyed understandings about food systems and the type of classroom culture that teachers were developing came through their comments. Teachers particularly noted that:

“it’s really our responsibility to reach out to nature to try to understand what it is. And as part of our curriculum, incorporating that into an Indigenous wisdom as a source of that learning, that I think has the power to change the world. It really does. Because you don’t see it unless you understand it.” (KK, elementary school teacher)

“It’s important for students to know where their food comes from. To know that it doesn’t just come off of a grocery shelf” (LS, elementary school teacher)

Taking a stance about sustainable and relevant food systems became evident together with teachers’ concern that students gained insights into the rationale behind the teacher’s stance. Teachers were looking to develop life-long skills and dispositions in their students. These included young people being able to make decisions about food consumption that was informed by a concern for ethics and environmental health.

#### **Relatings – social-political arrangements**

Within relatings the focus is about understanding how connectedness and power can be identified and how they play out in food systems. Here teachers were concerned for developing an appreciated about how we are brought into relationship with others and the practices we use with and through food.

“… when we look at reasons why people may or may not eat certain foods, that’s more of a social fostering respect and understanding of the different ways that we do things.” (SM, elementary school teacher)

“I just really think it’s important to be able to grow our own food here so that we can be sustainable and also support our local farmers and our local communities.” (MW, secondary school foods teacher)

Here teachers focused on why students need to learn about food. They spoke about this work needing to be done in environmentally sustainable ways There was also recognition of the need for social justice so that everyone could access the foods they required. Within this, teachers saw how this work also needed to be done in respectful ways and through interactions that are inherently complex.

## Values and motivations

Teacher judgment is driven by a person’s concern that what they offer is educationally right and sound (Edwards-Groves, 2008) for the students within their classrooms. Teachers spoke about the values that informed their teaching about food systems such that classroom practices were underpinned by an educative moral intent. This intertwining generates a particular food systems project where it was possible to see the signifiers and associated values and motivations within the teachers’ statements.

*Coding: Practice architectures:* Sayings Doings Relatings

*Praxial:* motives/actions individual/communal

“There’s a Hawaiian term “kooliana” which is knowledge with responsibility. So, with knowledge you have that responsibility to share it with others and that’s how I feel it is. As I learn more, I can’t not share it and teach it with my students.” (DN, secondary school foods teacher).

“They’re connecting to other people; they’re connecting to something. And that is one of the biggest values in education is that you are a caretaker and a steward” (KK, elementary school teacher).

“with the effects of climate change and the effects that can have on our food supply, I just really think it’s important to be able to grow our own food here so that we can be sustainable … knowing that my food comes from a local source and not from halfway around the world is really important.” (MW, secondary school foods teacher).

The communicative actions within these quotes demonstrates teachers’ praxial engagements to not only judge what their students need but to do so in a way that has an educative moral intent (Mahon et al., 2017). Here teachers’ practice architectures are evident in the sayings, doings, and relatings about food systems. This, in turn, builds critical food literacy that is informed by a moral intent.



*Diagram 2 Signifying food systems education. based on: Kemmis et al., 2014, p. 33*

## Conclusion

The responses offered in this paper are only from teachers in British Columbia and are bounded by the provincial curriculum standards. However, the responses provided by these teachers offers insights into their practices. By exploring teachers’ practice architectures in and around food literacy and food systems education three specific ideas emerge. Firstly, teachers spoke about their work with a commitment for the best interests of their students. Secondly, this work led teachers to engage with food systems education with their students as they perceive themselves as making the world a better place. And lastly, teachers were able to describe their work around food systems education in ways that drew upon relationships and participation as a collective, with an overall intention to (learn to) act in ways that morally benefits everyone using socially just and ecologically sound practices.

## References

Kemmis, S. (2008). What is professional practice? In C. Kanes (Ed.), *Developing professional practice.* New York: Springer.

Kemmis, S., & Grootenboer, P. (2008). Situating praxis in practice: Practice architectures and the cultural, social and material conditions for practice, Chapter 3 (pp. 37-62). In S. Kemmis & T. J. Smith (Eds.), *Enabling praxis: Challenges for education.* Rotterdam: Sense.

Kemmis, S., & Mutton, R. (2012). Education for sustainability (EfS): Practice and practice architectures. *Environmental Education Research, 18*(2), 187-207.

Kemmis, S., & Smith, T. J. (2008). Personal praxis: Learning through experience*. In Enabling Praxis* (pp. 15-35). Brill Sense.

Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P., & Bristol, L. (2014). *Changing practices, changing education.* Singapore: Springer.

Mahon, K., Kemmis, S., Francisco, S., & Lloyd, A. (2017). Introduction: Practice theory and the theory of practice architectures. *In Exploring education and professional practice* (pp. 1-30). Springer, Singapore.

Renwick, K. (2019). Food literacy as a way to be in the world. In M Edstrom (Ed.) *Canadian Symposium XV Issues and Directions for Home Economics/Family Studies/Human Ecology Education,* (pp. 151-158). Vancouver: UBC. <https://www.ca-symposium.com/proceedings>

Renwick, K. (2021) Who teaches food literacy? In *M. Edstrom* & K. Renwick, (Eds.) *Canadian Symposium XVI Issues and Directions for Home Economics/Family Studies/Human Ecology Education,* (pp. 104 - 110). Vancouver: UBC. <https://www.ca-symposium.com/proceedings>

# Getting to Know Local Farmers Can Enhance

# Home Economics Food Programs

## Renée T. Wiebe, M.Ed.

Food is something that we all consume. The gaps between place of production and place of consumption have grown larger, hence losing the sense of connection consumers have to food (Feldmann & Hamm, 2015). Cairns and Johnston (2018) suggest that consumers need to learn more about where their food comes from, to modify and adapt their consumption choices. Foods and Nutrition programs in schools are one of the many ways to teach students as consumers about making educated food choices, healthy eating, and how to prepare foods. Sometimes, as educators, we neglect putting students in touch with the people who supply the ingredients for the food products being made. Educating children to make healthy and ethical choices, in order to cultivate future consumer-citizens who promote the collective good through their purchases (Cairns & Johnston, 2018). We miss the opportunity to use agricultural literacy as part of home economics literacy.

In this paper I propose that using interviews of real farmers and food producers can create stories for students to assist them understand the people who produce food. I describe how I interviewed and surveyed farmers in order to use the interviews as a teaching resource for agriculture literacy in foods and nutrition courses. I also suggest that the interview format I used can be used by students to interview farmers in their areas to learn more about local food production and what it takes to produce food. I locate these activities in the literature on agricultural literacy and make the case that today’s students should have a greater understanding of the people who produce food.

**Agriculture Literacy and Agricultural Knowledge: Overview**

It has been said that most people lack even a superficial knowledge of agriculture and where their food comes from (Balschweid, et al., 1998; Berry, 2009; Buck & Rumble, 2013). Balschweid et al. (1998) express concern that students are becoming increasingly unaware of the source and methods used in the production of their food. The term food literacy is used to express the need for a broader understanding of food. Vidgen and Gallegos (2012) define food literacy as:

a collection of inter-related knowledge, skills and behaviours required to plan,

manage, select, prepare and eat foods to meet needs and determine food intake.

Food literacy is the scaffolding that empowers individuals, households,

communities or nations to protect diet quality through change and support dietary

resilience over time (p.vii).

There is an overlap of interest between food literacy and agricultural literacy. Agricultural literacy is a sub-concept of food literacy (Vidgen & Gallegos, 2012; 2014).

**Defining Agricultural Literacy**

The National Research Council (NRC) coined the term “agricultural literacy” in 1988 (Frick et al., 1991; National Research Council, 1988; Hess & Trexler, 2011). The accepted definition is: that

Agricultural literacy can be defined as possessing understanding of our food and fibre system. An individual possessing such **knowledge** would be able to **synthesize, analyze and communicate basic information** about agriculture. Basic agricultural information includes: the production of plant and animal agricultural products, the economic impact of agriculture, its societal significance, agriculture’s important relationship with natural resources and the environment, the marketing of agricultural products, the processing of agricultural products, public agricultural policies, the global significance of agriculture, and the distribution of agricultural products. (Frick et al., 1991, p. 52, emphasis added)

The definition was designed to promote the inclusion of agricultural education into classes from kindergarten to grade twelve and to advocate for systematic instruction aimed at becoming agriculturally literate (Frick et al., 1991). Curriculum supports were added into both urban and suburban schools to encourage diversity (Kovar & Ball, 2013). Two broad educational goals are evident in this definition: knowledge and critical thinking.

**Including Agricultural Knowledge**

Agricultural literacy includes basic agricultural knowledge such as that identified in the definition (Frick et al., 1991). In a study that was conducted, comparing rural and urban adults’ knowledge about agriculture, it was concluded that urban and rural non-farming adults lacked basic knowledge (Meischen & Trexler, 2003; Frick, et al., 1995). It should also be noted that just because children attend rural schools doesn’t necessarily mean they know much more than urban students (Meischen & Trexler, 2003). Authors who use the term food literacy often stress the need to understand food from “farm to fork” (e.g., Pendergast & Dewhurst, 2012; Smith, 2009a;2009b; Vidgen, & Gallegos 2012; 2014). The path from “farm to fork” historically used to be well known and understood by everyone (Cullen et al. 2015). However, today the food system is complex with the abilities to import and export a variety of foods. Food miles is a popular term used to indicate the distance that food travels from the farm to the plate (Weaver- Hightower, 2011) although it is considered a fairly crude measure. It tells us how far food travels but is not a very good measure of its environmental impact. Dyg (2014) adds that agricultural literacy includes knowing the “…[basic] and practical skills of growing your own food… and [having] the abilities to communicate [and understand] hands-on experiences, experiments or farm visits to qualify a deeper understanding of food and agriculture” (p. 191). Meischen and Trexler (2003) point out that an aspect that is missing from the definition of agricultural literacy when they state, “[B]ecause agriculture is a unique culture, an understanding of beliefs and values inherent in agriculture should also be included in a definition of agricultural literacy so people can become engaged in the system” (p.44). To me this means understanding agriculture as a human endeavor and connecting students to real people involved in farming (either directly or vicariously). So much of agriculture education takes farming out of its cultural context and away from families and as a result students are likely to become more estranged from the land and devaluing the actual work of farmers. So, Brewster (2011) suggests teaching activities that show “just how fascinating these folks [the people who produce food] are—how many great stories they have to tell” (p. 35). Stories are a way for students to gain a respect for people who work hard to produce the commodities we consume on a daily basis (Brewster, 2011).

Agriculture literacy involves the understanding of how food is produced and who produces it. Producing food can mean a variety of methods including: hunting, gathering, trapping, growing, and raising the food. It simply does not just mean teaching facts and figures; it is encouraging to students to realize that real people are involved in every process of food production. I envisioned creating a teaching resource whereby students might be put in touch with the individuals who are behind the food we eat. I decided on using the interview process to highlight these agricultural interviews and narratives. To provide a glimpse of and “put a face to” the many individuals and families who work hard every day to hunt, gather, trap, grow and raise our food. By creating lessons and resources on showcasing the voices of farmers within my local area, it allows students to see a face to some of the products we consume. Expanding on that notion, having the students take ownership to find and interview farmers that help to grow the faces of food items we eat. Wiebe (2017) states that “[agricultural literacy] can be used to encourage critical thinking, the ability to analyze, understand and make value judgments” (p. 203). This allows our students to apply these concepts and apply them to creating interviewing questions. Students can then use those interviews to create case studies and profiles to ensure a strong connection. It is an educational project that enriches Home Economics programs and contributes to the learning of how to live sustainably.

**Qualitative Interviewing**

To obtain information about the lives of farmers, I used qualitative research. Qualitative research seeks a deeper understanding about the way things are and why they are and how participants see them. It is based on that the assumption that the perspective of others is meaningful, knowable, and able to be made explicit. It involves a variety of interpretive approaches to the subject matter to “describe routine and problematic moments and meanings in individual’s lives” (Denzin & Lincoln, 1994, p. 2).

One approach to qualitative research is qualitative interviewing. Interviews provide greater detail and depth than surveys allowing insight into how individuals understand and narrate aspects of their lives (Turner, 2014). Alshenqeeti (2014) refers to an interview as “a conversation, whose purpose is to gather descriptions of the [life-world] of the interviewee” (p.40). An interview is more than just conversations, it offers valuable insight into people's perceptions, understandings, and experiences (Ryan et al., 2009). This helps to provide students with and increase their active listening skills.

There are three major types of interviewing: structured, group and unstructured (Fontana & Frey, 1994). Unstructured interviews are also referred to as informal conversational interviews, while structured interviews are described as following a general interview guide approach or a standardized open-ended question approach (Turner, 2014). I chose the general interview guide approach. It is more structured than the informal conversational interview although there is still quite a bit of flexibility in its composition. According to McNamara (2022), the strength of the general interview guide approach is useful in ensuring that the same general types of information are collected from each interviewee and is more focussed than the conversational approach, but still allows some freedom and adaptions on the part of the interviewer. Turner (2014) states that the interview process involves four parts: the preparation for the interview; the construction of research questions; the actual implementation of the interviews; and interpreting and using the data. I use these four parts to describe what I did.

**Preparation for the Interview**

For preparation of the interviews, I asked some close family farm friends if they could help me out. I did this verbally and then sent out an official request by mail. Even though many farms receive many letters and bills, this would ensure that a formal request could be made. E-mail has also made communications easier and quick. You can send requests fast and generally get responses in a timely manner. Getting some farmers or other food producers into the classroom for a group interview would be another approach to take. Granted the individual(s) are comfortable with that style.

**Construction Of Research Questions**

The questions I used were neutral and open ended and this provided a guide to help the participants explain their answers. Providing the questions ahead of time helped encourage areas for expansion, explanation and enabled a rich collection of data. The questions were designed to help convey the sense of what happens on the volunteer’s farm, the type of planning and work that needs to be done to assist in running and operating a successful farm. Also taking into consideration the nature of the study as being minimal risk, no personal questions were asked that would compromise the project or make the volunteers feel uncomfortable. Questions can be co-created by the class and a standardized interview form can be used. This will help format the profile creation of the farmer. It would also allow for flexibility in additional questions that were asked and answers provided. Below are some sample questions I used when I created my interviews.

**Sample Research Questions**

***Research Questions Questionnaire Questions :***

1. What is your role or title on your farm?

2. Do you have a family? Are they involved?

3. How does family impact agricultural decisions?

4. How long have you been involved with farming?

5. What kind of farming do you do?

6. Where is your farm located?

7. How many generations has your land has been farmed?

8. How many generations has this farm been in your family?

9. What products/commodities do you grow and/or raise?

10. What education and training do you have, both formal in informal?

11. Please list some of the challenges that the farming lifestyle has?

12. Favorite recipe(s) you would like to share based on the product/s you produce?

***Interview Questions:***

1. What is it like to be involved in agriculture?

2. Please describe your typical workday

3. What do you do in the spring, summer, fall, winter months?

4. How does today’s farming differ from the past?

5. What changes do you anticipate in the future?

6. What types of education do you recommend for people who are interested in going into farming?

7. f you would have any advice to give to prospective students interested in the world of agriculture, what would you tell them?

8. What got you started on this journey?

9. What is your educational background?

**Interpreting the Data**

Once the interviews were created into the question-answer format stories and the images taken were added in, they were sent electronically by e-mail to the participants to review and make changes/modifications that they saw fit. The changes that were made by the participants were minimal including format and some content clarification. Depending on the format style, you could have farmers come in and talk to the classes. When I set about interviewing and creating the narratives the topics, I sought out were: Interview 1- What is it like to be a Wheat Farmer, Interview 2- What is it like to be a Canola Grower, Interview 3- Raising Cattle, and Interview 4- Farming as a Career.

**Summary**

There is a weakness in the lack of teaching resources that feature the stories of real farmers. I interviewed farmers in the area where I teach to create stories that I could share with my students. I included my interview protocol for teachers who might like to do the same for where they live and teacher or for teachers to have students interviewing farmers as part of their curriculum for food studies. I realize that we might never know or “see” all the faces behind our foods we consume. I am always looking for inventive ways to incorporate agriculture literacy in creative ways that will leave a lasting impression on my students. It is not easy gathering the information to build these stories, but the rewards once they are finished are priceless.

**References**

Alshenqeeti, H. (2014).Interviewing as a data collection method: A critical review. *English Linguistics Research*, 3, 39.

Balschweid, M. A., Thompson, G. W., & Cole, R. L. (1998). The effects of an agricultural literacy treatment on participating K-12 teachers and their curricula. *Journal of Agricultural Education* 39, 1-10. DOI: 10.5032/jae.1998.04001

Berry, W. (2009). *Bringing it to the table*. Berkeley, CA: Counter Point Press.

Buck, E. B & Rumble, J. N. (2013). Narrowing the farm-to-plate knowledge gap through semiotics and the study of consumer responses regarding livestock images. *Journal of Applied Communications, 97*(3), 57-60.

Brewster, C. (2011). Toward a critical agricultural literacy. In Kim Donehower, Charlotte Hogg, Eileen E Schel *(Eds.) Reclaiming the Rural: Essays on Literacy, Rhetoric, and Pedagogy* (pp. 34–51). Sothern Illinois University Press.

Cairns, K., & Johnston, J. (2018). On (not) knowing where your food comes from: meat, mothering and ethical eating *Agriculture and Human Values*, *35*(3), 569–580. https://doi.org/10.1007/s10460-018-9849-5

Cullen, T., Hatch, J., Martin, W., Higgins, J. W., & Sheppard, R. (2015). Food literacy: Definition and framework for action. *Canadian Journal of Dietetic Practice and Research*, *76*(3), 140–145. https://doi.org/10.3148/cjdpr-2015-010

Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the Field of Qualitative Research. In *Handbook of Qualitative Research* (pp. 1–17). Thousand Oaks, CA: Sage

Dyg, P. M. (2014). *Fostering Food Literacy and Food Citizenship through Farm-School Cooperation and beyond: Theoretical perspectives and case studies on farm-school co. operation and food and agriculture educatio*n. Institut for Planlægning, Aalborg Universitet. https://vbn.aau.dk/ws/files/549548805/Final\_Thesis\_Farm\_school\_collaboration\_and\_food\_literacy\_and\_citizenship\_PEDY\_13\_January\_2013.pdf

Feldmann, C., & Hamm, U. (2015). Consumers’ perceptions and preferences for local food: A review. *Food Quality and Preference*, *40*, 152–164. https://doi.org/10.1016/j.foodqual.2014.09.014

Fontana, A. & Frey, J. H. (1994). Interviewing: The art of science. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (p. 371-376). Thousand Oaks, CA: Sage.

Frick, M. J., Kahler, A. A., & Miller, W. W. (1991). A definition and the concepts of agricultural literacy. *Journal of Agricultural Education*, *32*(2), 49–57. https://doi.org/10.5032/jae.1991.02049

Frick, M. J., Birkenholz, R. J., & Machtmes, K. (1995). Rural and urban adult knowledge and perceptions of agriculture. *Journal of Agricultural Education*, *36*(2), 44-53.

Hess, A., & Trexler, C. (2011). A Qualitative Study of Agricultural Literacy in Urban Youth: Understanding for Democratic Participation in Renewing the Agri–food System. *Journal of Agricultural Education*, *52*(2), 151–162. <https://doi.org/10.5032/jae.2011.02151>

Kovar, K. A., & Ball, A. L. (2013). Two decades of agricultural literacy research: A synthesis of the literature. *Journal of Agricultural Education*, *54*(1), 167-178. DOI: 10.5032/jae.2013.01167

McNamara, C. (2022). *General guidelines for conducting interviews*. <https://management.org/businessresearch/interviews.htm>

Meischen, D. L., & Trexler, C. J. (2003). Rural elementary students' understandings of science and agricultural education benchmarks related to meat and livestock. *Journal of Agricultural Education*, *44*(1), 43–55.

National Research Council. (1988). *Understanding agriculture: New directions for education*. Washington, DC: National Academy Press.

Pendergast, D. & Dewhurst, Y. (2012). Home economics and food literacy – An international investigation. *International Journal of Home Economics*, 5(2), 245-263. Retrieved from: https://www.ifhe.org/47.html

Ryan, F., Coughlan, M., & Cronin, P. (2009). Interviewing in qualitative research: The one-to-one interview. *International Journal of Therapy and Rehabilitation*, *16*(6), 309–314. <https://doi.org/10.12968/ijtr.2009.16.6.42433>

Smith, M.G. (2009a). Food or nutrition literacy? What concept should guide home economics education. *International Journal of Home Economics*, 2 (1). 48- 64. Retrieved from: <http://www.ifhe.org/47.html>

Smith, M.G. (2009b). Unexamined food is not worth eating. In *Proceedings of Canadian Symposium X Issues and Directions for Home Economics/Family Studies Education*, Saskatoon, SK. https://www.ca-symposium.com/proceedings

Turner, D. (2014). Qualitative Interview Design: A Practical Guide for Novice Investigators. *Qualitative Report*. <https://doi.org/10.46743/2160-3715/2010.1178>

Vidgen, H. A. & Gallegos, D. (2012). *Defining food literacy, its components, development and relationship to food intake: A case study of young people and disadvantage*. Retrieved from: <http://eprints.qut.edu.au/53786/1/Food_literacy_and_young_people_report.pdf>

Vidgen, H. A., & Gallegos, D. (2014). Defining food literacy and its components. *Appetite*, *76*, 50–59. https://doi.org/10.1016/j.appet.2014.01.010

Weaver-Hightower, M. B. (2011). Why Education Researchers Should Take School Food Seriously. *Educational Researcher*, *40*(1), 15–21. https://doi.org/10.3102/0013189X10397043

Wiebe, R. (2017). Interviews of farmers as a teaching resource for agriculture literacy in home economics. In M. Edstrom, M. L. deZwart, & J. Tong (Eds.), *Proceedings of the Canadian Symposium XIV: Issues and Directions for Home Economics/Family Studies/Human Ecology Education* February 24-26, 2017 London, Ontario, (pp. 201- 208). https://www.ca-symposium.com/proceedings

# Other papers

# A Girl and Her Home: What the 1956 Saskatchewan home economics curriculum guide tells us about women and the home

## Amanda Jurgens, M.A., B.Ed.

**Introduction**

This paper details partial work I presented at the 17th Canadian Symposium for Home Economics Education from my master’s thesis *Home Economics as an Education in Material Relationships: What Curriculum Guides, 1956 and 1969, tell us About Girls, Women, Homes, and Dress* (Jurgens, 2021). My master’s degree and thesis were completed through a material culture lens with the supervision of Dr. Arlene Oak at the University of Alberta in the department of Human Ecology. My bachelor of education was completed at the University of Saskatchewan in the home economics teaching program in 2009 and my teaching experience has been in Saskatchewan so although completed through the University of Alberta, my research focuses on Saskatchewan home economics education. During the course of my research, I explored the question, how do home economics curriculum guides for high-school courses present ideas of home and dress in connection to the lives of the girls and young women who would take these courses as students? Specifically, the research considered how a 1956 curriculum guide compares to one from 1969 with regard to how these guides instructed teachers in Saskatchewan to present the material phenomena of the home (which includes the actions of home making) and clothing/dress to their students.  My presentation at the symposium and this paper will focus on the area of my research that studies how teachers were instructed by the 1956 curriculum guide to present the ideas of relationship with the home to girls and young women in home economics classes.

This paper will describe the terms home economics and material culture. I will briefly explain the gaps in literature that led to my research as well as a short description of the research methods I used. The way in which the 1956 curriculum describes the terms family, home, girls, and women will be explained next. Findings of my research examining the role of women and the home as described by the 1956 curriculum guide will follow. I will conclude this paper with a brief review of some changes seen from the 1956 to 1969 curriculum guide and with some questions to consider in using the study of historic curriculum guides in making the future of home economics.

**Home Economics**

Home economics has been defined as “a mission-oriented field of study and professional practice” with the goal “to address human needs by interventions that prevent or solve problems that affect the way people live their lives” (Nickols & Collier, 2015, p.15). The scholarly field of home economics includes in its study the “near environment” that includes clothing and home interiors as well as areas of study centered around food science, consumer studies, and family studies (Apple, 2015; Pendergast et. al., 2012).

**Material Culture**

The scholarly field of material culture studies is characterized by examinations of the relationships between people and their material things (Arcidiacono & Pontecorvo, 2019; Buchli, 2004; Ingold, 2013; Miller 2010). The word “material” references the dimensional products of human creation that range from small items and garments, through to large structures, such as buildings. The accompanying word, “culture” references the social aspects of creating and using things so that “material culture” means both objects and how people engage with them. The associated term "materiality" refers to “the physical or tangible aspects of entities” (Arcidiacono & Pontecorvo, 2019, para 5) as these are experienced and given meaning by people. Discussions of materiality and material culture importantly recognize and explore the social aspects of objects and the dialectical relationship between people and things (Arcidiacono & Pontecorvo, 2019; Entwistle, 2015). While an analysis of material culture objects often involves a deep description and analysis of the physical object being studied (Prown, 1982), studies of material culture can also include discussions of how objects and materials are written about in relation to the lives of people (Harvey, 2017).

My research is a close reading of curriculum guides as documents that reference issues related to material culture and material experiences (e.g., home environments). My study is therefore not an analysis of the curriculum guides as objects themselves, but rather an analysis of what is written in the guides that points to the material contexts of the lives of the young women and girls who were studying home economics in 1956 and 1969. As a graduate student of material culture studies, and also a teacher of home economics, my knowledge of the material-related skills and practices of home economics sensitized me to the meanings of references to materiality in the guides (e.g., how the home should be organized) and as I read the guides closely, I became interested in the links between the values and attitudes communicated in the guides and how these related to what was being said about materiality.

**Curriculum Guides**

The main sources of primary evidence for my research are two curriculum guides from Saskatchewan in 1956 and 1969. A curriculum guide sets out the curriculum, which is a planned sequence of learning objectives or goals and modes of instruction, including plans for student activities and experiences that are to be performed to reach the stated learning goals or objectives (Wiles, 2009). Curriculum guides act as indicators of how education as a practice is not neutral but is shaped by power, politics, history, and culture (Smith, 2017) by presenting a relatively formalized set of beliefs and cultural attitudes to teachers to present to students through both direct and indirect instruction (Anderson et al., 2001). The guides are relevant documents to study in order to understand how materiality related to home economics teaching and to aspects of the lives of the students.

Curricula in Canada is created at the provincial level by ministries of education, with each province creating and maintaining the curriculum for each program of study (Pratt, 1989). The 1956 curriculum guide indicates that it was written by a committee of teachers, but these teachers are not specifically named (Saskatchewan Department Education,1956). The historic curriculum guides are paper documents with printed text containing curriculum content that the teachers can regularly consult to plan their classroom-based activities, to help them develop assignments and to determine how best to assess students; and to help them relate the details of assignments to the wider scholarly and practical aspects of the content area (e.g., home economics) as a field of knowledge (Jurgens, 2021).

One of the reasons that studying historic curriculum guides is significant is that the audience for the guides was teachers so rather than the curriculum guides being a reflection of what home economics students actually did or what individual home economics teachers emphasized, the curriculum guides can provide a window into the social history of home economics education by revealing what lessons, wider ideas and viewpoints were important to policy makers of the time, who, as authors of the guides, developed the curriculum that would affect the lives of thousands of girls and women, both teachers and students (Grundy & Henry, 1995; MckErnan, 2008; Popkewitz, 2009).

While there is writing that describes the history of home economics as a scholarly field of study, and the history of home economics education in secondary schools (Dupuis, 2020; Nickols & Collier, 2015; Renwick 2017), there is little research available on the specific content of curriculum guides for home economics teaching at this level (with apparently no work done to date on the contents of the curriculum guides written for Saskatchewan teachers). There is also a lack of research that considers home economics education through a material culture viewpoint. Courses in home economics taught students how they should engage with clothing (particularly in relation to their embodied presentation of self) and the domestic setting of the home (that is, the care and management of home interiors) in ways that indicate the wider social importance and meaningfulness of both dressed bodies and home environments, yet this aspect of home economics teaching and learning is understudied.

**Choosing and Studying Archival Data**

I requested clothing-related curriculum guides from 1900 to 2018 from the Emma Stewart Resource Centre at the Saskatchewan Teacher’s Federation. The resource centre provided original copies of the curriculum guides they had in their possession, which included clothing curriculum guides from 1956, 1969, 1977, 1983, and 2000. When I received the guides, I was intrigued by their physical presentation in terms of paper quality, layout, typography, etc.. To a material culture scholar, the guides are interesting as examples of printed ephemera (alongside items such as playbills, pamphlets, and booklets) that reveal information and stories of a particular time (Twyman, 2008). The curriculum guides can be thought of as a kind of literature whose writing offers perspectives on knowledge of the past (in this case, concerning home economics education), its construction, and its circulation (Mills & Mills, 2018). So instead of embarking on a deep study of the materiality of the curriculum guides themselves in the style of Jules Prown (Prown, 1989) I conducted a social history-oriented research project. My qualitative method focused on the close reading of my archival, or primary, documents: the curriculum guides from 1956 and 1969.

**The 1956 Guide**

The 1956 curriculum guide is titled *Program of Studies for the High School: Home Economics*. Physically, the guide measures 17 cm wide and 25.4 cm tall.  The guide has 32 numbered pages. The curriculum guide is bound with two staples in the spine, and then folded into a booklet (see figure 2 and 3).  The same paper is used on the cover as throughout the pages of the booklet.  The last printed page of the booklet (32), a list of references, appears on the backside of the booklet*.*

The guide includes courses for grades 9-12 in the first portion of the guide; each of these grades consisting of four-five pages of content. The guide also includes what are called “Supplements for grade 7 and 8.” These Supplements are a shorter version of curriculum compared to the grade 9-12 curriculum that precede the Supplements in the document. The Supplements contain just two pages of curriculum each (grade 7 and 8). The guide begins with a Table of Contents followed by a Foreword. The Foreword introduces the “study of homemaking” as “important preparation for the later development of happy and successful homes” (SDE, 1956, p.4). The Foreword also positions the school as a location to study “good homemaking” (SDE, 1956, p.4). The Foreword to the guide also indicates that a new curriculum has been issued at this time (1956) “to keep abreast of the times” (SDE, 1956, p.4). The Foreword also describes how the curriculum was developed. No authors are named in this document, however the Foreword states that a home economics committee was established by the Department of Education (of Saskatchewan) to develop the curriculum (SDE, 1956, p.4). The committee spent two years, through 15 regular meetings, developing the curriculum. The work of the committee was “a subject of study and discussion at the Technical Teacher’s Conventions and by regional groups of home economics teachers” (SDE, 1956, p.4). The Foreword ends with the Department of Education acknowledging the contribution of the home economics curriculum writing committee.

The next section of the curriculum guide is titled “General Objectives in Home Economics” (SDE, 1956, p.4). Objectives identify the kind of behaviour to be developed in the student through learning the content in the course (Anderson et al., 2001). The rest of the content for the 1956 curriculum guide is organized in relation to grades. Within each grade there are units that fit into the general areas of Home Living, Foods, and Sewing and Clothing. The titles of these units vary but typically “Unit I” covers topics on managing the home and personal and family relationships. Other units include topics of food science and meal planning, and personal appearance in dress and sewing and caring for clothing (SDE, 1956).

**Findings**

Although the following descriptions may not be inclusive or reflective of what all homes and families actually looked like in 1956 Saskatchewan, the next section will discuss how the 1956 curriculum guide defines these terms.

***Homes and Family***

The curriculum guide implicitly links the idea of the family as a social unit with the idea of the home. For example, the 1956 curriculum guide states “Good homes… are the result of intelligent attitudes and conscious efforts on the part of mothers, fathers and family members … (SDE, 1956, p.4). In this way, the curriculum guide presents the idea that a family as consists of a mother and father and other family members. Secondary literature defines family in the 1950’s, as a “nuclear family” consisting of a mother, father and their offspring (Farrelly, 2012). The home in this case is not only described as the physical material furnishings, and belongings but also as being made up of the socio-emotional lives of the people who dwell within the home.

The 1956 curriculum guide also contains a list that recommends texts for teachers to read and among those recommended by this curriculum guide there are a high number of texts recommended in section for “Home and Family Living” in comparison to other areas such as “Consumer Education” or “Foods”.  This speaks to an emphasis on the importance of “Home and Family Living”.  The title “Home and Family Living” itself reinforces the idea that the home and family are intertwined in this curriculum guide.

***Girls and Women***

The 1956 curriculum guide is explicitly written to present to female students as evidenced by the language of the guide; this is not unusual for the time. Historically, home economics education has been written expressly for instruction to young women (Bix, 2002; Grundy & Henry, 1995; Moss, 2010; Niessen, 2017). In the 1956 guide the term “girl” and pronoun she is used when describing students from grade 7 -11.  For examples, one of the aims in the grade seven section of the curriculum guide is: “…to encourage the girls to become active helping members of their families, and to open to them an area of knowledge and skills that will help them become better homemakers” (SDE, 1956, p. 28).  The term young women or woman and the pronoun she is used to describe students in grade 12. This shift in terminology indicates the way that teachers were encouraged to think of their students in the latter years of their schooling as (nearly) independent adults who were likely soon to marry and raise a family. For example, by grade twelve the curriculum guide aims for young women “To appreciate woman’s place in society [and] to develop [into] efficient home managers” (SDE, 1956, p.21). By referencing “woman” in a curriculum guide that instructs teachers on how to address and teach students, the idea is reinforced that these students should prepare themselves to step (more-or-less) directly from school into their responsibilities of future homemakers. This idea of girls and women becoming homemakers is evident in the aims stated in the curriculum guide. We will explore some of these findings next.

***The Role of Women***

The 1956 curriculum guide explicitly defines a woman’s place in society: **“**1, To bear children; 2, To take major responsibility for bringing up the children at least when they are small; 3, To be a homemaker…”(SDE, 1956, p. 21).Further reading into the guide reveals that “homemaking” encompasses the care of the physical materials for the home for example, the building, furnishings, clothing, and decorations. The guide indicates that girls and young women should learn to clean and care for her room at home and also the school home economics laboratory in an effort to learn how to eventually clean and care for their family home. Teachers are specifically told by the guide to instruct students in “Making and changing of beds…sweeping and dusting…cleaning windows and mirrors and picture and in keeping drawers and closets tidy…”(SDE, 1956, p.7).

The guide also indicates that as a homemaker girls would not only look at clothing or sewing for personal use or style, but rather as an extension of the home.  For example, one part of the specific aim of the grade twelve clothing course in 1956 is for a young woman “[t]o be able to play a real part in family clothing planning…”(SDE, 1956, p.24).  Here the curriculum guide clearly indicates that teachers present clothing as not only a personal item, but as something that women will care for as a part of caring for their family and family home. Throughout the 1956 guide the social interactions of family members with one another are consistently linked to aspects of the materials of the home: for example, when the guide mentions setting dinner on the kitchen table, this action is implied to be an invitation for the family to gather and converse. Also, throughout the 1956 guide, there are consistent reminders that the girls/young women should be taught to take care of the materials that make up the home, including items such as beds, stoves, and flooring. The actions of learning to care for such material items are presented in ways that reflect care for the family. It is through learning to care for and maintain the intertwined material and social phenomena of the home that the curriculum guide indicates girls will find success in their futures as wives, mothers, and homemakers.

***Morality, Democracy and Home Life***

The feeling of the home, and the purpose of the home are intertwined in the 1956 curriculum guide. The desirable feeling of a home described by the 1956 curriculum guide a “happy and successful home” (SDE, 1956, p.4) as a “good home”. As Ruth Schwartz Cowan writes, during the 19th century, “The physical artifact ‘home’ came to be associated with a particular sex, ‘women’; with a particular emotional tone, ‘warmth’; with a particular public stance, ‘morality’” (Schwartz Cowan, 1983, p.18. 19). From the terms used in the curriculum guide, we can see that connections between the woman, the home, and the home’s “goodness” or “warmth” persisted from the 19th century into the mid 1950s since, in the 1956 guide, the idea of moral goodness, as a principle that underpins the woman’s behaviour, is connected to the home. The woman is meant to act in ways that will create a particular emotional as well as spatial environment- a home that is a “good,” “happy,” or “warm.” As a result, the overall “feel” of the environment will be created through the actions of planning, choosing, arranging, and maintaining the materials of the home. The 1956 curriculum guide and the wider cultural beliefs that contributed to it, all directly link the materiality (e.g., furnishings) of the home to the positive feelings communicated at least in part by this materiality (e.g., good, happy, and warm) and thereby also to the direct actions and skills of the woman as homemaker.

The curriculum guide implies that the responsibility for this ethical and emotional environment is of the women as a homemaker as evidence in grade the grade 12 Unit for Home Living that includes a subsection entitled, “Qualities of a happy home” which is lists the following qualities, “1, Congenial members; 2, Healthful atmosphere -- physical, spiritual, mental; 3, demonstrated affection; 4, freedom from anxiety…” (SDE, 1956, p.21). It is through this woman created feeling in the home that the purpose of the home as described by the 1956 curriculum guide is achieved.  The purpose the home in the 1956 curriculum guide is to aid in the goals of democracy. As well as emphasizing the potential of the home as a place of moral goodness the Foreword of the curriculum guide for 1956 emphasizes the importance of “democracy,” particularly in relation to the character of citizens. This is evident in statements such as, “The welfare of a democratic country depends largely on the characters of its citizens which in turn are moulded by the many influences of childhood and youth” (SDE, 1956, p. 4). The influences in childhood and youth mentioned in the statement includes the home and education.  So the curriculum guide presents a girl’s home economics education as a way for her learn the skills needed that will allow her to create a successful and happy home, and to teach those skill to her own children in turn making the home an important building blocks of a stable democratic country. So what does the 1956 curriculum guide say of the homemaker herself?

***Finding Satisfaction in Caring for the Home***

The 1956 curriculum guide consistently presents the idea that women should be fulfilled by their roles as homemakers. The idea of women gaining fulfillment through care of the home was not a new idea in home economics in 1956. In 1902, Marie Uri Watson, the principal of the Ontario School of Domestic Art and Science gave a speech that instructed teachers in how to prepare girls/women for their future lives. Watson said that “…school life is but a preparation for the fuller home life of a woman” (Peterat & deZwart, 1995, p. 18). Importantly, Watson’s statement specifies that by participating in a sewing course women will have a “fuller” home life. Here, the use of the word “woman” rather than the use of a term such as student, person, or woman *and* man, implies that the domestic environment is the prime location of a woman’s fulfilment. Also, the use of the word “fuller” in this instance indicates the engrossing, all-encompassing aspect of the home as the centre of the woman’s life, indicating that in the mid-20th century when the 1956 guide was written, the ideal of a woman’s highest calling was still to be a thoughtful, caring wife and mother (Elias, 2008; Farrelly, 2012).

The idea of a woman gaining fulfillment through taking care of her home and family, through her relationship with the material phenomena of the home and clothing is repeated consistently throughout the 1956 curriculum guide. Synonyms of the word “fulfill,” like “satisfied,*”* are found throughout the document, as we see in this example from the grade 8 aims section of the guide: “As the student continues to perform household tasks, she will gain confidence, skill, and satisfaction in work well done” (SDE,1956, p.30). Also, in the grade 11 “Unit III- Clothing” one of the Aims moves beyond teaching in a way that will help the girl be “satisfied” with her work to instead help her learn how gain “pleasure” from it (SDE, 1956, p.19). The grade 12 “Unit III-Clothing”Aim builds on this idea, stating that girls will be able “to learn the skills that make working with fragile fabrics a pleasurable success” (SDE, 1956, p.24); here, the term “success” indicating her skillful proficiency of overcoming difficulty, is the way that the girl achieves pleasure. The 1956 curriculum guide directly links the positive feelings of home with direct actions and skills of the woman as homemaker. In this way the 1956 guide links particular aspects of materiality, such as clothing and home furnishings, both to the happiness of others and ultimately to the strength and freedom of a nation.

**Shifting Times and Changing focus**

The next home economics curriculum guides that were issued in Saskatchewan were in 1969. The guides in 1969 are split into Advanced clothing and Housing, rather than as one cohesive curriculum guide titled Home Economics. The content of the 1969 curriculum guides illustrate some major changes in the perspective of the place of girls and women, and in the area of home economics as an area of academic study. In the 1969 guide, the sense of “place” associated with women and with home economics is directed beyond the walls of a single family’s home towards a wider, more global sense of place for the students. The 1969 guide also reveals a shift in the focus of home economics itself as a kind of centered “place” for studying clothing, textiles, and home management towards a more interdisciplinary study. The 1969 guide presents home economics as a field and as a topic of study that is understood and taught as an interdisciplinary field of practice that was engaged with wider scholarship and society (Jurgens, 2021).

**Conclusion**

The study of historic curriculum guides is important because it can help us, as teachers, practitioners and students of home economics to consider the lasting impacts that a curriculum guide may have on the teachers who work with them, and on the young students who are presented ideas not only about their relationship with the home, bodies and dress but also about home economics as an area of study.

The study of these historic guides is important because by reflecting on the past we can ask questions about curriculum guides such as: How are the home and its spaces presented in home economics teaching in other times and/or places? What are the implicit and explicit lessons that are taught in home economics classrooms and how might a curriculum guide influence both explicit and implicit messages that are presented to teachers to present to students? How might have messages presented in home economics curriculum guides affected students in a negative way and how can we change and address these perspectives moving forward?

Home economics remains a dynamic and evolving field of study and we must continue to examine our past as we move forward in developing the home economics curriculum of today and tomorrow.

**References**

Anderson, L. W, Krathwohl, D. R, & Bloom, B. S. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom’s taxonomy of educational objectives.* Longman.

Apple, R. D. (2015). Home economics in the twentieth century: A case of lost identity? In S. Y. Nickols and G. Kay (Eds.), *Remaking home economics: Resourcefulness and innovation in changing times (*pp. 54- 69). University of Georgia Press. ProQuest Ebook Central, *https://ebookcentral.proquest.com/lib/ualberta/detail.action?docID=2055023*

Arcidiacono, F., & Pontecorvo, C. (2019). On materiality: Home spaces and objects as expanding elements of everyday experiences. In *Forum Qualitative Sozialforschung/ Forum: Qualitative Social Research*, *20*, (3). https://doi.org/10.17169/fqs-20.3.3165

Bix, A. S. (2002). Equipped for life: Gendered technical training and consumerism in home economics, 1920-1980. *Technology and Culture*, *43*(4), 728-754.

Buchli, V. (Ed.). (2004). *Material culture: critical concepts in the social sciences* (Vol. 2).Taylor & Francis.

Dupuis, J. M. (2020). *Stirring the pot: Towards a critical social and ecological justicepedagogy of home economics* [Master’s thesis, University of Saskatchewan]. University of Saskatchewan Electronic Theses and Dissertations.

Elias, M. J. (2008). *Stir it up: home economics in American culture.* University of Pennsylvania Press.

Entwistle, J. (2015). *The fashioned body: Fashion, dress and modern social theory.* (2nd ed.). Polity Press.

Farrelly, C. B. (2017). *Construing family: a critical discourse analysis of home economics curriculum 1972-2009* [Doctoral Dissertation, Monash University]. <https://doi-org.login.ezproxy.library.ualberta.ca/10.4225/03/58a65c35acfb3>

Grundy, S.& Henry, M. (1995). Which way home economics? An examination of the conceptual orientation of home economics curricula. *Journal of Curriculum Studies, 27* (3), 281-297.

Government of the Province of Saskatchewan Department of Education. (1956). *Program of studies for the high school home economics.* Lawrence Amon, Queen’s Printer.

Harvey, K. (2009). *History and material culture: A student's guide to approaching alternative sources.* Routledge.

Ingold, Tim. (2013). *Making: Anthropology, art and architecture*. Routledge.

Jurgens, Amanda. (2021). *Home Economics as an Education in Material Relationships: What Curriculum Guides, 1956 and 1969, tell us About Girls, Women, Homes, and Dress.* University of Alberta.

McKernan, J. (2008). The curriculum and its ideological conceptions.In J. McKernan (Ed.), *Curriculum and the imagination: Process theory, pedagogy and action research.* (pp.3-36). Routledge.

Miller, D. (2010). *Stuff.* Polity Press.

Mills, A. & Mills, H. (2018) Archival research. In C. Cassell, A. L. Cunliffe &G. Grandy (Eds.), *The SAGE handbook of qualitative business and management research methods: Methods and challenges* (pp. 32-46). SAGE Publishing.

Moss, G. (2010). *Stories from the road: memories of home economics extension at the University of Saskatchewan, 1913-1980.* G. Moss.

Nickols, S. and B. Collier. (2015). Knowledge, mission, practice: The enduring legacy of home economics. In S. Y. Nickols and G. Kay (Eds.), *Remaking home economics: resourcefulness and innovation in changing times (*pp. 11- 35). University of Georgia Press*.*

Niessen, A. (2017). Beads and moccasins: A journey to self discovery in home economics. In M. Edstrom, M. L. deZwart, & J. Tong (Eds.), *Proceedings of the Canadian Symposium XIV:* *Issues and Directions for Home Economics/Family Studies/Human Ecology Education February 24-26, 2017 London, Ontario*, (pp. 149-155).

Pendergast, D., McGregor S.L.T. & Turkki, K. (2012). Creating home economics futures: The next 100 years. In D. Pendergast, S. L. T. McGregor & K. Turkki (Eds.), *Creating home economics futures: The next 100 years* (pp. 1-11). Australian Academic Press.

Peterat, L., & deZwart, M. Leah. (1995). *An education for women: The founding of home economics education in Canadian public schools.* Home Economics Publishing Collective.

Popkewitz, Thomas S. (2009). Curriculum Study, curriculum history, and curriculum theory: the reason of reason. *Journal of Curriculum Studies,* *41*(3), 301-319.

Pratt, D. (1989). Characteristics of Canadian curricula. *Canadian Journal of Education/Revue canadienne de l'éducation*, *14* (3), 295-310.

Prown, J. D. (1982). Mind in matter: An introduction to material culture theory and method. *Winterthur Portfolio*, *17* (1), 1-19

Province of Saskatchewan Department of Education. (1969). *Program of studies for the high school home economics (division IV): Advanced clothing I.*

Renwick, K. (2017). The making of ignorance: undermining the value of home economics. In M. Edstrom, M.L. deZwart, & J. Tong (Eds.), *Proceedings of the Canadian Symposium XIV: Issues and Directions in Home Economics/Family Studies/Human Ecology Education, London and Ontario* (pp. 24-26). https://www.ca-symposium.com/proceedings

Saskatchewan Department of Education. (1969). *Home economics (division IV): Housing and interior design.*

Schwartz Cowan, R. (1983). *More work for mother: the ironies of household technology from the open hearth to the microwave.* Basic Books.

Smith, M. (2017). Pedagogy for home economics education: Braiding together three perspectives. *International Journal of Home Economics*, *10*(2), 7-16.

Twyman, M. (2008). The long term significance of printed ephemera. *RBM: A journal of Rare Books, Manuscripts, and Cultural Heritage 9*(1), 19-57.

Wiles, J. (2009). *Leading curriculum development.* Corwin Press.

# Exploring Maker Education in Home Economics

## Chantel Mack

**Abstract**

This paper explores a modern educational initiative called Maker Centered Education (MCE) and the Maker Movement (MM) how it can be utilized in Home Economics (HE) classes. I begin with the origin and history of the maker movement, discuss Maker Centered Education, maker culture, and Maker Spaces. Then I draw attention to its use in education and the potential for maker philosophy in HE. MCE is a relatively new term in learning and education theory but it relates closely to principles of hands-on learning that takes place in HE classes around the world.

**Introduction**

The idea of maker centered education was originally promoted as a way to attract more students to pursue careers in science, technology, engineering, and math (STEM) related subject areas (Martin, 2015).  The goal of maker education is to get students exposed to hands-on learning, problem solving, and interested in following career paths in those areas (Martin, 2015). Throughout researching MCE, I became interested in focusing on developing ways to incorporate principles of maker education into CT&F classes. The reason why I believe this deserves further inquiry related to making in CT&F classes is that it has the potential to increase student engagement and create a more student-centered classroom experience. Interest in students pursuing a career in making is more on the backburner in a soft maker space as many projects can be regarded as crafting which is more of a hobby than a profession. But I believe that the benefits in making are more than just pursuing career goals. Home Economics concentrates on everyday life (Smith & DeZwart, 2010). Promoting hobby or crafting is also about balancing activities that promote creativity which I and others (Fancourt & Finn, 2020) have found is positive for mental health. Resurgence in hobbies and making through the maker movement (MM) and more recently an explosion, especially in the popular press, in making during COVID pandemic in 2020 has raised the intrinsic value put on making ‘things’ (Smith, 2020).

**The “Maker Movement”**

The term ‘maker movement’ is an umbrella term used to capture a variety of formal and informal activities that involve making for creating.  Popularized in the early 2000s when Dougherty (2013) began using the term to describe the upward trend of people creating things and sharing their product and experience in making it. It is described as a “cultural trend” (Kwong & Lee, 2017). Dougherty (2012) explains that the MM grew in part because people “need to engage passionately with objects in ways that make them more than just consumers” (p. 12). According to Halvorson and Sheridian (2014) the MM refers to the increase in people who are engaged in the creative production of artifacts in their daily lives. Thus, the activities of many people are included within the descriptor, for example, do-it-yourselfers, hobbyists, tinkerers, engineers and artists with the commonality that they all think critically to design, and engage in hand-on projects (Taylor, 2016).

**History of Making**

Although people have been making things forever, the popularity and contemporary use of maker movement to describe a broad range of activities from traditional arts and crafts to STEM and hacking activities related to robotics and electronics is relatively new (Rosa, et al., 2017). In the distant past, the notion of making things was necessary for survival (e.g., developing tools, making clothing, quilts/bedding, or building shelter, furniture, growing food, etc.). The idea of getting more out of something by, re-using, re-purposing, thrifting, mending and fixing were natural elements.  People did not just go out and immediately ‘buy a new one’ if something wasn’t suiting its purpose or needed fixing or adjusting. For example, people would replace buttons and patch holes in clothing more often than in today’s age where many would simply just buy something new rather than mending it (König, 2013).

In the 20th century, making was generally associated with longstanding hobbies and crafts such as woodworking and sewing (Martin, 2015) where it has evolved into an amalgamation of art and craft: creating beautiful artifacts, mostly hand crafted; like quilt making, constructing clothing, fashion accessories, and home decor. But the 21st century use of “maker” has evolved to include making functional devices using digital media and technology in the creation process (Katterfeldt, 2014). This version of making has been pushed forward by the affordability of technology to prototype, tools to fabricate and easier sourcing of resources and supportive communities; especially online platforms (Dougherty, 2012). According to Hatch (2014) technology has made creating easy enough that anyone can become a maker.

Dougherty (2012) uses the term ‘experimental play’ to describe that people who make (Makers) are enthusiasts who play with technology to learn about it.  Examples of technology include digital tools as well as non-digital machines and hand tools. Digital tools like computer-driven design software, digital cutting machines, embroidery machines, long arm quilting machines, laser cutters and 3D printers (Make, 2013). Non-digital technology are tools, for example, for CT&F, they could be items such as sewing machines, overlock and coverlock machines, and hand tools like the needle, cutting tools, iron, snap press, eyelet punch, leather tools and other basic sewing tools.

A contemporary subculture of the MM has roots in rejecting consumerism. This rejection of consumerism is the idea that buying something new is unnecessary and getting something second hand, making something work by repurposing things you already have, fixing rather than throwing out; is better for the environment than the current popular trends of mass consuming or buying (Dougherty, 2012). These projects are often described as recycling, breaking down to reuse or remake, or upcycling, a combination of upgrading and recycling where used materials are converted into something of higher value and/or quality in their second life (Kim & Lee, 2021; Sung & Sung, 2018). Both are intentional activities designed to save materials from the landfill and thus have the potential to contribute to sustainability, although the significance of that has yet to be proven (Millard, et al., 2018).

**What Makes a Maker**

Making is a broad genre and welcomes all types of making. Most references include such activities as: cooking, sewing, embroidery, weaving, welding, woodworking, robotics, soldering, printing, painting, and building (Peppler et al., 2013). As already noted, Martin (2015) identifies several names that are used to describe a maker, however they share one goal: creating and designing (Dougherty, 2012; Halvorson & Sheridian, 2014). Makers share many qualities including:

* they have a ‘maker mindset’ which includes a “can-do” and do-it-yourself (DIY) attitude (Dougherty, 2013; Peppler, et al., 2013; Vossoughi & Bevan, 2014)).
* they enjoy hands-on making and using technological innovations (Peppler et al., 2013,)
* they are product oriented and build, adapt, and/or create artifacts (Halverson et al., 2014; Millard et al, 2018; Peppler, et al., 2013)
* they gain a sense of satisfaction in showing others what they create - participate in maker faires  (Hatch 2014).
* they are looking for an alternative to being only consumers of things and are motivated by intrinsic goals rather than extrinsic reward (Clapp et al., 2016; Dougherty, 2013; Hatch, 2014)
* they are sometimes motivated by environmental values such as avoiding waste, recycling, thrift, repairing and upcycling (Millard et. al, 2018; Clapp, et al., 2016; Sung & Sung, 2015;  Unterfrauner & Voigt, 2017; Unterfrauner, Hofer, Schrammel  & Fabian, 2019)

Mark Hatch, author of “The Maker Movement Manifesto” (2014) asserts that all people were born to make and that making is a source of satisfaction especially when makers show others what they create.

**Makerspaces**

Maker communities are groups of people who share an interest in making products or artifacts and who share and or collaborate with each other in person or virtually (Dougherty, 2012).  A makerspace is a collaborative work space that could be in households like kitchens, basements, garages sheds, craft rooms or inside a school, library or separate public/private facility for making, learning, exploring and sharing that uses ‘high and low-tech’ tools (Davee, Ragalla & Chang, 2015; Dougherty, 2013; Hlubinka, et al, 2013).

Makerspaces “bring together people, tools, skills, and resources in a single physical location for the purposes of designing, prototyping, and do-it-yourself manufacturing” (Blikstein et al., 2017, p. 149). A makerspace is a place where kids/teens/adults have an opportunity to make something that they choose after some basic training with tools and materials to get them started (Dougherty, 2013). Facilitator or teacher roles are meant to be as experts and referenced only when needed, asking questions to encourage the maker to figure it out by trying and not someone who gives the solutions to problems. Hertz (2012) suggests that makerspaces provide a creative space where people of all ages can explore questions, fail, retry, bounce ideas off others and build things alone or together. “Makerspaces come in all shapes and sizes, but they all serve as a gathering point for tools, projects, mentors and expertise. A collection of tools does not define a Makerspace. Rather, we define it by what it enables: making” (Make 2013, p. 1). If this is the case then most Home Economics classrooms can be considered makerspaces; foods labs enable the making of food products and textile labs enable the making of textile items.

**Maker Fairs**

One feature of the MM is sharing projects with others. Many involved in MM find physical and digital forms to share their processes and products with others (Halverson et. al., 2014) such as creating blogs, or joining online groups to display their projects, and as a place for seeking advice and inspiring ideas. One of the most popular forms of sharing is what is called a Maker Faire where makers display their artifacts and share their ideas with other like-minded creators.  They can be small “show and tell” events or large exhibition style events such as the one held in San Francisco in 2010 that attracted 1000 makers and 80,000 attendees (Foster, Wigner, Lande & Jordan, 2015). According to the MakerFair website, by 2017, over 190 small “Mini Maker Faires” and over 30 larger-scale Maker Faires had taken place around the world (https://makerfaire.com/makerfairehistory/).

**Maker Centered Education**

Integrating the MM in schools is described as maker education (ME), maker centered education (MCE) or maker centered learning (MCL) (Schad & Jones, 2020). In this paper I use MCE. Maker Ed Magazine (2015) outlines that the mission of MCE is to provide more opportunities for all young people to develop confidence and interest in science, technology, engineering, math, art through the process of making. This connects the MCE with such educational initiatives like STEM, (which integrates Science, technology, engineering and mathematics) or STEAM (which adds Arts) but it has also been a long standing part of education in courses such as Home Economics, Technology Education (woodworking, mechanics, metal work), Art, Music and Drama (Peppler et al., 2016). The research on MCE appears to center on three themes: how to explain MCE; understanding making as a learning activity; and maker learning environments.

**How to Explain Maker Centered Education**

Maker centered education has roots in the maker movement but it differs in that maker centered education in-schools is considered to be formally embedded into the school curriculum, as opposed to an out-of-school hobby (Hsu, Baldwin, & Ching, 2017). The main goal of adopting ideas from the MM into Education is to transform learning opportunities to those “that nurture individuals to adopt the habits of mind that makers have and to become engaged citizens we want our kids to be” (Make, 2013, p. 3). Traditional, formal education in many places has become reliant on testing and scores where there is little to no time left to play (Make, 2013). Dougherty (2013) states that although many students do well by academic standards, he is concerned that those students could be short changed on nurturing the “kind of creative and innovative thinkers and doers that we need” (p. 8) in the community.

**Connections to Educational Theories**

Those who advocate for making in schools, align MCE to the learning theories of constructivism, constructionism and project based learning (Halverson et. al., 2014; Schad & Jones, 2020).The foundation of the maker movement is seeded in constructivism theory of learning where the learner actively constructs their own knowledge and meaning from their learning experiences (Halvorson et. al. 2014). Halvorson and Sheridan (2014) refer to constructionism as framing “learning as the product of play; experimentation and authentic inquiry” (p. 497). Constructivism is based on the scientific understandings of psychologists such as Jean Piaget, philosophers John Dewey and social cultural theorists such Lev Vygotsky with goals that focus on individual students developing deep understandings in the subject matter of interest and habits of mind that aid in future learning. Dougherty (2012) points out that Dewey was convinced that having a tactical engagement or a hands- on experience with something hand made that matches the virtues of learning by doing.

Several authors connect MCE to constructionism, a term created by combining the theory of constructivism with “construction,” or “making,” coined by Papert (Schad et. al., 2020). Papert and Harel (1991) are advocates for constructionism, defined as, the learning that occurs through the construction of artifacts that learners care about and have some degree of agency over. They describe it as ‘building knowledge structures’ and claim that constructionism includes the idea of learning-by-making which is based on physical production-based experiences being at the core of how people learn (Papert et. al. 1991). Dougherty (2012) links making to constructivism and he refers to Jean Piaget’s theory about teaching is that educators should “lead the child to construct for himself the tools that will transform him from the inside- that is, in a real sense and not just on the surface” (p. 10). Dougherty (2012b) also points out that when students have the opportunity to talk or tell a story about an object that they have made, they learn simultaneously while teaching others. Ultimately, at the core of constructionism is that learners actively construct their own knowledge and meaning from their experiences which is also foundational to MCE and the MM (Vossoughi & Bevan, 2014).

Dougherty(2012) also connects MCE to  project-based learning. Project based learning originated in the 1950’s at McMaster University as a movement to restructure medical school education (Walker & Leary, 2009). Since then, it has been widely used in a multitude of academic disciplines at the primary, secondary and university levels. Project based learning is commonly defined as an approach to teaching that taps into students’ interests by allowing them to create projects that result in meaningful learning experiences (Ward & Lee, 2002). According to Larmer and Mergendoller (2010), “[a] project is meaningful if it fulfills two criteria. First, students must perceive it as personally meaningful, as a task that matters and that they want to do well. Second, a meaningful project fulfills an educational purpose” (p. 54).  Although the notion of meaningful learning experience is common with MCE, Schad and Jones (2020) emphasize that what makes MCE unique is the notion of agency and allowing students to have some choice in what they make.

**The Learning Potential of Making in Education**

The idea of working with your hands and doing the projects sometimes seems like mindless production, however; it is much more than that (Dougherty, 2013). MCE has the power to change some priorities found in formal education in a way that students can direct their educational goals in a creative and innovative way (Dougherty, 2013). Making involves hands-on learning which encourages students to do something; engaging them in active learning. Students are practicing skills and putting their knowledge to the test when they make. Most importantly; they are actively creating knowledge instead of passively consuming it (Dougherty 2012; Hatch, 2014; Martin, 2015).

Martin (2015) discusses bringing making into education to “enhance opportunities for students to engage in design and engineering practices...science, technology, engineering” (p.30), art and mathematics, typically known as STEM subjects or with the addition of Art (STEAM) (Blikstein, et. al.  2017). By bringing the idea of experimental play to learning, it can naturally foster a need and interest regarding STEAM content in order to improve their projects (Hlubinka et al., 2013; Martin, 2015).

Makers are intrinsically motivated when they choose their own challenge and solve problems related to it, which fosters resourcefulness, creativity and innovation (Hlubinka et. al, 2013).  The Makerspace Playbook (Hlubinka et al., 2013) argues that the MM can inform education by:

* “Creating the context that develops the Maker mindset, a growth mindset that encourages us to believe that we can learn to do anything.
* Building a new body of practice in teaching making-and a corps of practitioners to follow it.
* Designing and developing Makerspaces in a variety of community contexts in order to serve a diverse group of learners who may not share the access to the same resources…
* Identifying, developing and sharing a broad framework of projects and kits based on a wide range of tools and materials that connect to student interests in and out of school.
* Designing and hosting online social platforms for collaboration among students, teachers and the community.
* Developing programs especially for young people that allow them to take a leading role in creating more makers.
* Creating the community context for the exhibition and curation of student work in relationship with all makers. Making sure that new opportunities are created for more people to participate.
* Allowing individuals and groups to build a record of participation in the Maker community, which can be useful for academic and career advancement as well aws advance a student's sense of personal development.
* Developing educational contexts that link the practice of making to formal concepts and theory, to support discovery and exploration while introducing new tools for advanced design and new ways of thinking about making. (Practically this means developing guides for teachers, mentors and other leaders.)
* Fostering in each student the full capacity, creativity and confidence to become agents of change in their personal lives and in their community.” (p. 3)

Another way that the MM could enhance learning opportunities is by eliminating grading in the sense that it is a competition for a high score or judging if someone's project is better than others. (Make, 2013). In an effective maker community, members are more interested in open sharing and exhibition; not competition of whose is best (Make, 2013).  Halvorsen and Sheridian (2014) suggest that bringing the MM into the “education conversation has the potential to transform how we understand ‘what counts’ as learning, as a learner, and as a learning environment” (p. 503).  Bevan et al. (2020) identify five learning dimensions of MCE:  conceptual understanding; initiative and intensionality; problem solving and critical thinking; creativity and self-expression; and social and emotional engagement.

In their book *Maker Centered Learning: Empowering Young People to Shape their Worlds,* Clapp, Ross, Ryan, Oxman, & Tishman (2016) point out that maker centered learning builds character by establishing a sense of self in the world and develops agency by feeling empowered to make choices about how to act in the world. They also suggest that “participating in the MM may help foster development of an anti-consumerist; do-it-yourself mind-set on an individual level and spawn a wave of innovation and entrepreneurialism” (Clapp et al., 2016, p. 15). They describe the desired outcome of the MM is maker empowerment “a sensitivity to the designed dimension of objects and systems, along with the inclination and capacity to shape one’s world through building, tinkering, re-designing or hacking” (Clapp et al, 2016, p. 98).

Makers take risks when/by trying things out and iterate, re-design or re-draft their projects and through this process, they eventually come up with three possible outcomes: i) the solution, ii) learning that what they wanted to achieve is maybe not possible with what they have, or iii) a solution is not possible at all (Make, 2013). Whatever the outcome there is learning that takes place in the trying, iteration and trying again (Ryoo, et al., 2015). “Making fosters character-building traits collectively known as grit, including creativity, curiosity, open-mindedness, persistence, social responsibility, and teamwork, among others” (Make, 2013, p. 3). Maker mindset encourages people to be able to tolerate risk and failure, and be motivated to find the solution to the failure if there is one (Ryoo et al., 2015; Dougherty, 2012).

**Learning Environments to Enhance MCE**

There are three ways that MCE is implemented in schools. Some schools set up specific makerspaces, dedicated to specific maker courses. Physical maker spaces could be a dedicated room, a section of a library or if an area is not available a portable cart or a maker box (Hertz, 2012). These makerspaces are designed for equality in learning by making available the tools and resources that are not accessible to everyone (Lankes, 2012). Herold (2016) points out that the main goal of maker education is to find new ways to “engage all students; especially those who have struggled to find a comfortable place in school” (p. 2). Some schools use regular classrooms and have mobile carts of technology, tools, and material that can be wheeled in for maker activities.

Other schools use already existing maker spaces, for example, the Foods and Textiles labs designed for Home Economics, the wood and metal shops associated with Industrial or Technology Education, the Art Classrooms or Studies, Music Rooms, and so on.  In those spaces specifically, organized maker courses can be offered, or maker education can be infused into existing programs.  In the grey literature (e.g., blogs, Pinterest, etc), textile and crafting space are described as “soft makerspaces” or “soft shops.”

There are many articles that advocate for making and MCE, however, there are very few research reports that discuss the actual implementation of MCE (Papavlasopoulou, et al, 2017).

**Maker Centered Education and Home Economics Education**

In my search for literature on MM and MCE, I did not find any studies that were HE specific.  Making has always been a part of home economics.  For example, foods classes are always ‘making foods’, CT&F classes are typically ‘making’ or sewing clothing, quilts and some classes extend into other textile crafts such as embroidering and tie-dyeing; all of which are involved in the process of making items. Often the literature mentions in passing that earlier making occurred in HE classes, but what is often assumed is that HE classes no longer exist anymore.  This is not surprising as the ‘grey’ literature is full of articles on the theme of “bring back home ec” (Smith, 2016).  This ignores the fact that HE is very much alive in many schools.

What makes making in HE unique is HE’s focus on education for everyday life (McGregor, 2012) which gives the action of making a slightly different perspective from the literature on the MM that emphasizes STEM education, digitization, invention and entrepreneurship (Blikstein, et. al., 2017; Martin, 2015). HE education prepares students to address the perennial practical problems of individuals and families (Brown & Paolucci, 1979; Brown, 1980) and the International Federation of Home Economics’ goal of “sustainable living for all” (IFHE). HE education is practical in nature because as Vaines has explained “knowledge or knowing is for the sake of doing something with the knowledge which is different from a discipline oriented field which views knowledge as an end” (Vaines, 1980, p. 112).

**How the concept of Makerspaces can be facilitated in a HE Classroom**

The Literature on makerspaces seldom gives specifications on how to set up a makerspace.  In reality, a makerspace could be anywhere, it could be small like a moveable makerstation or large like a whole room dedicated as a makerspace.  A makerspace is not reliant on high tech equipment.  The emphasis is always on the fact that it is a space where people can work together and be creative.  Frequently HE classrooms and shop classes are mentioned as “old” maker spaces as if they don’t exist anymore.  In Canada, HE programming is common in many high schools across the country but some have been phased out or not offered for various reasons. Food Studies programming is more widely offered but some larger schools still offer CT&F.  Since HE classes still widely exist in Saskatchewan, HE sewing labs can be defined as makerspaces.

Home Economics textiles classrooms can be characterized as soft maker spaces because most of the materials used are ‘soft’ things such as fabric, thread, yarns, trims, interfacing and stuffing. Sewing notions like buttons, zippers, snaps and buckles are also important to sewing. They are also equipped with a variety of specialized machines, tools and materials that are accessible to students to use. Both low tech tools and high tech tools can be found in a CT&F classroom. The lowtech tools include things like shears, pins, hand sewing needle, seam ripper, measuring tape, thimble, fabric markers, seam gauge, tracing wheel/paper, iron, rotary cutter, cutting mats, grid ruler, dress form.  High tech tools like the sewing machine, overlock (also called a serger) machine and sometimes a coverlock machine are standard technology used in a CT&F classroom. To create a makerspace that serves a wider range of making activities; additional specialized equipment could be used to expand the variety of high and low tech tools and materials available for students to utilize. For example, adding high tech machines like a Cricut machine, an embroidery machine, free-motion quilt machines, 3D printers, or heat presses. Low tech tools like hot glue gun, Bedazzler stud applicator, eyelet/snap clamp, embroidery hoops, knitting needles, crochet hooks, pliers, wire cutters, and so on. Expanded maker supplies could include things such as beads, plastic canvas, embroidery floss, cross stitch canvas, beads, sequins, wood/metal rings, silk flowers, feathers, foam shapes/tubes, wire, fabric paint, dyes, headbands, foam, felt, cardboard, coroplast, ribbons, macrame cord and yarn.

**Conclusion**

There is an abundance of literature related to MCE and the MM and how it could transform learning in a way that increases student engagement in what they are learning, to promote ownership over their learning and increase social skills (Schad & Jones, 2020). MCE provides an opportunity to show students that learning through making allows them to gain knowledge in specific technical literacy which can lead to discovering new interests through trying things out. The fabrication process relies on design/drafting, building, testing, then maybe back to drafting following through to testing again which helps people tolerate failure. Constructivists like Piaget have argued that students learn the most by experiencing things themselves and being able to connect through working with their hands allows a tactile experience that is memorable and also meaningful aspects that align well with the premise of makerspaces. A few authors pointed out that people keep the things that they have made because they mean more to them than just an object that you purchase as there is no connection made through the process of figuring it out. Drawing on my own experiences I agree with this point since the impact of a hands-on experience has been more meaningful and memorable for me. It has given me confidence and makes my life more enjoyable.

I have examined the literature on MM and MCE and concluded that home economics has a "maker" heart and therefore viewing the home economics classroom as a "maker space" is consistent with the goals of home economics education.  I did not, however, find any literature that discussed MCE in Home Economics. Also, similar to Papavlasopoulou, et al. (2017), I found the implementation literature limited and there are no reports exploring the relationship between MCE and HE education.

**References**

Bevan, B., Ryoo, J. J., Vanderwerff, A., Wilkinson, K., & Petrich, M. (2020). I See Students Differently”: Following the Lead of Maker Educators in Defining What Counts as Learning. *Frontiers in Education 5*, 121. doi: 10.3389/feduc

Brown, M. (1980). *What is home economics education?* Minneapolis, MN: University of Minnesota.

Brown, M., & Paolucci, B. (1979). *Home Economics: A definition*. Washington, DC: American Home Economics Association.

Blikstein, P., Kabayadondo, Z., Martin, A. & Fields, D. (2017).  An assessment instrument of technological literacies in makerspaces and fablabs. *Journal of Engineering Education*, *106*(1) P. 149-175. DOI: 10.002/jee.20156

Clapp, E., Ross, J., Ryan, J., Oxman, J & Tishman, S. (2016). Maker centered learning: Empowering young people to shape their worlds. John Wiley & Sons.

Davee, S., Ragalla, L. & Chang, S. (2015). Makerspaces: Highlights of select literature. *Maker Educational Initiative*.<https://makered.org/wp-content/uploads/2015/08/Makerspace-Lit-Review-5B.pdf>

Dougherty, D. (2012). The maker movement. *Innovations: Technology, governance, globalization*, *7*(3), 11-14. https://direct.mit.edu/itgg/article/7/3/11/9719/The-Maker-Movement

Dougherty, D. (2013). The Maker Mindset. In Honey, M. & Kanter, D. E. (Ed.). *Design, Make, Play: Growing the next generation of STEM innovators* (pp. 7-11) Routledge.

Fancourt, D., & Finn, S. (2020). *What is the evidence on the role of the arts – Scoping Review*. World Health Organization.<https://apps.who.int/iris/bitstream/handle/10665/329834/9789289054553-eng.pdf>

Foster, C. H., Wigner, A., Lande, M., & Jordan, S. (2015). Welcome to the Maker movement: parallel education pathways of adult Makers. In *American Society for Engineering Education Annual Conference and Exhibition,* Seattle, Washington, (p. 25052). https://doi. org/10.18260 (p. 25052

Halverson, E. R., & Sheridan, K. (2014). The maker movement in education. *Harvard Educational Review*, *84*(4), 495-504.

Hatch, M. (2014). *The Maker Movement Manifesto: Rules for Innovation in the New World of Crafters, Hackers, and Tinkerers.* McGraw-Hill.

Herold, B. (2016). The'maker'movement is coming to K-12: Can schools get it right. *Education Week*, *35*(35), 28-30.<https://www.edweek.org/ew/articles/2016/06/09/the-maker-movement-is-coming-to-k-12.html>

Hertz, M. (2012). *Creating makerspaces in schools*. George Lucas Educational Foundation.<https://www.edutopia.org/blog/creating-makerspaces-in-schools-mary-beth-hertz>

Hlubinka, M., Dougherty, D., Thomas, P., Chang, S., Hoefer, S., Alexander, I., McGuire, D., …, Scott, B. (2013). *The Makerspace Playbook: School Edition*. Mentor Makerspace. https://makered.org/wp-content/uploads/2014/09/Makerspace-Playbook-Feb-2013.pdf

International Federation of Home Economics (IFHE) (n.d.). *Who We Are.* <https://www.ifhe.org/about-us/who-we-are/>

Hsu, Y., Baldwin, S., & Ching, Y. (2017). Learning through making and maker education. *TechTrends,* 61(6), p. 589-594. DOI: 10.1007/s11528-017-0172-6

Katterfeldt, E. (2014). Maker culture, digital tools and exploration support for FabLabs. In Walter-Herrmann, J., & Büching, C. (Eds.), *FabLab: Of machines, makers and inventors*, (pp. 139-147). Transcript Verlag.

Kim, I., Jung, H. J., & Lee, Y. (2021). Consumers’ Value and Risk Perceptions of Circular Fashion: Comparison between Secondhand, Upcycled, and Recycled Clothing. *Sustainability*, *13*(3), 1208.

König, A. (2013). A stitch in time: Changing cultural constructions of craft and mending. *Culture Unbound: Journal of Current Cultural Research*, 5(33), 569-585.

Kwon, B. & Lee, J. (2017) What makes a maker: the motivation for the maker movement in ICT, *Information Technology for Development*, 23:2, 318-335, DOI: 10.1080/02681102.2016.1238816

Lankes, R. (2012). The makings of maker spaces: Part 1: Space for creation not just consumption. *Library Journal*,<https://www.libraryjournal.com/?detailStory=the-makings-of-maker-spaces-part-1-space-for-creation-not-just-consumption>

Larmer, J. & Mergendoller, J.R. (2010). *The Main Course, Not Dessert.* Buck Institute for Education.https://www.cisd.org/cms/lib6/TX01917765/Centricity/Domain/162/Main\_Course.pdf

McGregor, S. (2012), Everyday Life: A Home Economics Concept, *Kappa Omicron Nu Forum* (19), 1.<http://www.kon.org/archives/forum/19-1/mcgregor.html>

Make Co. (2013). *Makerspace playbook: school edition*. Maker Education.<https://makered.org/wp-content/uploads/2014/09/Makerspace-Playbook-Feb-2013.pdf>

Martin, L. (2015). The promise of the maker movement for education *Journal of Pre-College Engineering Education Research (J-PEER)*, *5*(1), 4. DOI: 10.771/2157-9288.1099

Millard, J., Sorivelle, M. N., Deljanin, S., Unterfrauner, E., & Voigt, C. (2018). Is the maker movement contributing to sustainability? *Sustainability*, *10*(7), 2212.

Papavlasopoulou, S., Giannakos, M. N., & Jaccheri, L. (2017). Empirical studies on the Maker Movement, a promising approach to learning: A literature review. *Entertainment Computing*, *18*, 57-78

Papert, S. & Harel, I. (1991). Constructionism: Situating Constructionism. Chapter 1. Ablex Publishing Cor, 1991

Peppler K. & Bender, S. (2013). Maker movement spreads innovation one project at a time. *Phi Delta Kappan*, *95*(3), 22-27.

Peppler, K., Halverson, E. R., & Kafai, Y. B. (Eds.). (2016). *Makeology: Makers as learners*. (Vol. 2). Routledge.

Rosa, P., Ferretti, F., Guimarães Pereira, A., Panella, F., & Wanner, M. (2017). *Overview of the maker movement in the European Union*. Publications Office of the European Union, Luxembourg.<https://ec.europa.eu/jrc/en/publication/overview-maker-movement-european-union>

Ryoo, J. J., Bulalacao, N., Kekelis, L., McLeod, E., & Henriquez, B. (2015, September). Tinkering with “failure”: Equity, learning, and the iterative design process. In *FabLearn 2015 Conference at Stanford University, September 2015*. [https://techbridgegirls.org/Tinkering+With+Failure\_FabLearn\_2015.compressed.pdf](https://techbridgegirls.org/Tinkering%2BWith%2BFailure_FabLearn_2015.compressed.pdf)

Schad, M. & Jones, W.M., (2020). The Maker Movement and Education: A Systematic Review of the Literature, *Journal of Research on Technology in Education*, 52(1), 65-78, DOI: 10.1080/15391523.2019.1688739

Smith, M.G. (2016). “Bring Back Home Economics”? Challenging Contested Discourses on Obesity. *Journal of Family and Consumer Science, 108(4), 7-12.*

Smith, M.G. & de Zwart, M.L. (2010). A contextual study of the subject and Home Economics teacher education. Teacher Inquirer.<http://www.thesa.ca/wordpress/wp-content/uploads/2016/01/inquiry_contextual.pdf>

Smith, R. I. (2020, April 1). Getting Through a Pandemic with Old-Fashioned Crafts. *The Atlantic.* [https://www.theatlantic.com/culture/archive/2020/04/crafts-coronavirus-quarantine-stress-relief/609187/](%20%C2%A0https%3A//www.theatlantic.com/culture/archive/2020/04/crafts-coronavirus-quarantine-stress-relief/609187/)

Sung, K., & Sung, K. (2015, April). A review on upcycling: Current body of literature, knowledge gaps and a way forward*.* *The ICECESS 2015: 17th International Conference on Environmental, Cultural, Economic and Social Sustainability*, Venice, Italy, 13-14 April 2015.<http://irep.ntu.ac.uk/id/eprint/12706/>

Taylor, B. (2016). Evaluating the Benefit of the Maker Movement in K-12 STEM Education. *Electronic International Journal of Education, Arts, and Science 2*(1), 1-23

Unterfrauner, E., Shao, J., Hofer, M., & Fabian, C. M. (2019). The environmental value and impact of the Maker movement—Insights from a cross‐case analysis of European maker initiatives. *Business Strategy and the Environment*, *28*(8), 1518-1533.

Vaines, E. (1980). Home economics: A definition. *Canadian Home Economics Journal,* 30(3), 111-114.

Vossoughi, S., & Bevan, B. (2014). Making and tinkering: A review of the literature. *National Research Council Committee on Out of School Time STEM*, *67*, 1-55. <https://www.informalscience.org/making-and-tinkering-review-literature>

Walker, A. & Leary, H. (2009) A problem based learning meta analysis: Differences across problem types, implementation types, disciplines, and assessment levels. *Interdisciplinary Journal of Problem-based Learning*, 3(1). 12-43.

Ward, J. & Lee, C. (2002). A Review of Problem-based Learning. *Journal of Family and Consumer Sciences Education,* v20 n1 p16-26 Spr-Sum 2002

# Food Literacy Progression: A Framework of Food Literacy Development

# for Children and Youth from 2-18 Years

## Joyce Slater, RD. PHEc, MSc, PhD

University of Manitoba

Joyce.slater@umanitoba.ca

We live in an incredibly complex food system. The widespread availability and marketing of highly processed foods in most countries has eroded food skills and knowledge, negatively impacting population health and well-being (Moubarac et al., 2014; Moubarac et al., 2012). These trends are further impacted through often erroneous or misleading food and nutrition information on social media and other platforms (Byrne et al., 2017). We are also increasingly aware of the impact of contemporary food production and consumption on the Earth’s sustainability (Fanzo et al., 2022). Consequently, the ability for people to maintain health and well-being of themselves and the planet, through food and nutrition, has paradoxically become more difficult. This is especially concerning for children and youth as they develop to become tomorrow’s adults.

Children and youth are particularly vulnerable to fast food environments (Black & Billette, 2015) and inappropriate messaging about food, weight, and body image and can lead to unhealthy dietary patterns (Jebeile et al., 2021). These dietary patterns, character by disproportionate consumption of highly processed, branded foods, and disordered eating (unhealthy pre-occupation with food and including restrictive dieting) (Rodgers et al., 2014).

Poor dietary habits increase risk of developing nutrition-related chronic illness in adulthood, as well as body image issues and other mental health conditions (Fardet & Boirie, 2014; Meier et al., 2019). A 2019 systematic review of 195 countries in The Lancet medical journal found “suboptimal diet is responsible for more deaths than any other risks globally, including tobacco smoking.” (Afshin et al., 2019) Our suboptimal diet is largely the result of food environments that readily enable over-consumption of highly processed foods with too much fat, sugar and salt, while simultaneously valorizing thin, ‘fit’ bodies and diet culture (Knobloch-Westerwick & Crane, 2012; Vanderlee & L’Abbé, 2017).

Children and youth, however, receive few tools with which to navigate this complex food system. Most approaches from public health are primarily focused on reductionist interventions such as nutrition labels and altering individual ingredients/nutrients of ‘public health concern’ (e.g., sugar and salt). These strategies have not improved overall population nutritional health, including that of young Canadians (Jessri et al., 2015; Rossiter et al., 2012). Ineffective as they are, these messages are dwarfed by alternative and potentially harmful advice on social media.

More wholistic, positive approaches to food and nutrition promotion and education are warranted. The emerging scholarship on food literacy provides a lens for mitigating the negative effects of the modern, complex food environment (Cullen et al., 2015; J Slater, 2017; Vidgen, 2016). Food literacy is a broad concept encompassing a spectrum of both tacit and procedural knowledge, skills, and attitudes about food. As a form of literacy, it is the outcome of educational goals intended to inform and develop personal skills, and contribute to personal and community empowerment and social change (Nutbeam, 2000). Food literacy increases food self-determination and enhances health and well-being.

One strategy is comprehensive, universal food education for children and youth to cope with the complexity of the modern food system; however, guidance on relevant food knowledge, attitudes, and skills to inform such education is lacking. Consequently, the Food Literacy Progression was developed to address this gap.

The Food Literacy Progression provides an organizational framework for food literacy development from ages 2-18 years. The Progression is a tool that can be used to support food education by demonstrating the importance and range of food-related capabilities in human development; and the progression of knowledge, skills and attitudes required to become food literate. This goes beyond competencies in food skills (which are critical) to include those in the areas of food relationships and food system sustainability (Table 1).

The Progression can be used in many settings by educators to develop and evaluate food education programs and initiatives, and to communicate the breadth of capabilities required to be

food literate. Program developers can use the Progression to plan and advocate for food literacy education and resources.

The Food Literacy Progression expands on the Critical Food Literacy Competencies for Youth framework developed at the University of Manitoba (Joyce Slater et al., 2018). Competencies are organized under three broad categories: *Functional, Relational* and *Systems Competencies*.

Within each competency area are a series of developmental benchmarks, delineated by age band (2-4 years; 5-7 years; 8-11 years; 12-14 years; 15-18 years). The benchmarks were developed using principles and processes for social and emotional learning competence development3, and through a review of the literature, including Core competences for children and young people aged 5-16 years: A framework of skills and knowledge around food, diet and physical activity4. The Progression was assembled and reviewed by a team of Canadian home economics teachers, dietitians, and nutritionists, as well as experts from the British Nutrition Foundation, and Deakin University School of Exercise and Nutrition Sciences.

The Food Literacy Progression Framework of Food Literacy Development for Children and Youth from 2-18 Years can be found at <https://www.fanlit.org/seeds-of-learning-v2>. The Progression is available as a booklet (downloadable) or poster (by mail). A complete list of contributors and reviewed literature are included in the booklet.

Table 1. Food Literacy Progression Competencies

|  |  |  |
| --- | --- | --- |
| **FUNCTIONAL COMPETENCIES**Confidence and empowerment with food | **RELATIONAL COMPETENCIES**Joy and meaning through food | **SYSTEMS COMPETENCIES**Equity and sustainability for food systems |
| **Nutrition*** Understand the link between food and health at different ages and developmental stages
* Find reliable food and nutrition information
 | **Eating and Cooking with Others*** Use food to promote social well-being and solidarity
 | **Social Justice*** Understand food security issues at individual, community and global levels
* Discover scope of careers in food production and nutrition
* Be aware of social just implications of food production and choices
 |
| **Food Skills*** Plan and prepare a range of dishes and meals using appropriate kitchen tools and equipment
 | **Positive relationships with Food*** Enjoy food and eating
* Be present and attentive to food and eating
* Choose food that promotes well-being and self-determination
* Have a positive body image of self and others
* Understand that food is more than nutrients
 | **Food and Environmental Sustainability*** Be aware of the relationship between food and environmental sustainability
* Reduce food waste
 |
| **Being an Informed Consumer*** Critically appraise food industry interests and marketing strategies
* Critically evaluate food and nutrition messaging on social media platforms
* Distinguish between food and nutrition facts and myths
 | **Food and Culture*** Enjoy food traditions, celebrations, cultural food and famiy recipes
* Understand cultural influences on food and eating
* Appreciate food and ways of eating from diverse cultures
 |  |
| **Food Origins*** Understand where and how food is produced
 |  |  |
| **Food Safety & Hygiene*** Use safe food handling practices when preparing, cooking and storing food
* Practice effective personal hygiene
* Follow safe kitchen and equipment use procedures
 |  |  |
| **Obtaining Food*** Navigate food environments for health, convenience and economics
 |  |  |

**References**

Afshin, A., Sur, P. J., Fay, K. A., Cornaby, L., Ferrara, G., Salama, J. S., Mullany, E. C., Abate, K. H., Abbafati, C., Abebe, Z., Afarideh, M., Aggarwal, A., Agrawal, S., Akinyemiju, T., Alahdab, F., Bacha, U., Bachman, V. F., Badali, H., Badawi, A., … Murray, C. J. L. (2019). Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*, *393*(10184), 1958–1972. https://doi.org/10.1016/S0140-6736(19)30041-8

Black, J. L., & Billette, J. M. (2015). Fast food intake in Canada: Differences among canadians with diverse demographic, socio-economic and lifestyle characteristics. *Canadian Journal of Public Health*, *106*(2). https://doi.org/10.17269/CJPH.106.4658

Cullen, T., Hatch, J., Martin, W., Higgins, J. W., & Sheppard, R. (2015). Food literacy: Definition and framework for action. In *Canadian Journal of Dietetic Practice and Research,* *76*(3), pp. 140–145). https://www.scopus.com/inward/record.uri?eid=2-s2.0-84939513703&doi=10.3148%2Fcjdpr-2015-010&partnerID=40&md5=a2fb0e375110c5a58c053022e05adca6

Byrne, E., Kearney, J., MacEvilly, C. (2017). The role of influencer marketing and social influencers in public health. *Proceedings of the Nutrition Society*, *76*.

Fanzo, J., Rudie, C., Sigman, I., Grinspoon, S., Benton, T. G., Brown, M. E., Covic, N., Fitch, K., Golden, C. D., Grace, D., Hivert, M. F., Huybers, P., Jaacks, L. M., Masters, W. A., Nisbett, N., Richardson, R. A., Singleton, C. R., Webb, P., & Willett, W. C. (2022). Sustainable food systems and nutrition in the 21stcentury: A report from the 22ndannual Harvard Nutrition Obesity Symposium. *American Journal of Clinical Nutrition*, *115*(1). https://doi.org/10.1093/ajcn/nqab315

Fardet, A., & Boirie, Y. (2014). Associations between food and beverage groups and major diet-related chronic diseases: An exhaustive review of pooled/meta-analyses and systematic reviews. *Nutrition Reviews*, *72*(12). https://doi.org/10.1111/nure.12153

Jebeile, H., Partridge, S. R., Gow, M. L., Baur, L. A., & Lister, N. B. (2021). Adolescent Exposure to Weight Loss Imagery on Instagram: A Content Analysis of &quot;Top&quot; Images. *Childhood Obesity*, *17*(4). https://doi.org/10.1089/chi.2020.0351

Jessri, M., Nishi, S. K., & L’Abbé, M. R. (2015). Assessing the nutritional quality of diets of canadian adults using the 2014 Health Canada surveillance tool tier system. *Nutrients*, *7*(12), 10447–10468. https://doi.org/10.3390/nu7125543

Knobloch-Westerwick, S., & Crane, J. (2012). A Losing Battle. *Communication Research*, *39*(1), 79–102. https://doi.org/10.1177/0093650211400596

Meier, T., Gräfe, K., Senn, F., Sur, P., Stangl, G. I., Dawczynski, C., März, W., Kleber, M. E., & Lorkowski, S. (2019). Cardiovascular mortality attributable to dietary risk factors in 51 countries in the WHO European Region from 1990 to 2016: a systematic analysis of the Global Burden of Disease Study. *European Journal of Epidemiology*, *34*(1). https://doi.org/10.1007/s10654-018-0473-x

Moubarac, J. C., Batal, M., Martins, A. P., Claro, R., Levy, R. B., Cannon, G., & Monteiro, C. (2014). Processed and ultra-processed food products: consumption trends in Canada from 1938 to 2011. *Canadian Journal of Dietetic Practice and Research : A Publication of Dietitians of Canada = Revue Canadienne de La Pratique et de La Recherche En Dietetique : Une Publication Des Dietetistes Du Canada*, *75*(1), 15–21.

Moubarac, J. C., Bortoletto Martins, A. P., Claro, R. M., Levy, R. B., Cannon, G. & Monteiro, C. A. (2012). Consumption of ultra ­ processed foods and likely impact on human health: evidence from Canada. *Public Health Nutrition, 16*(12), 2240–2248. https://doi.org/10.1017/S1368980012005009

Nutbeam, D. (2000). Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International*, *15*(3), 259–267.

Rodgers, R. F., Paxton, S. J., & McLean, S. A. (2014). A Biopsychosocial Model of Body Image Concerns and Disordered Eating in Early Adolescent Girls. *Journal of Youth and Adolescence*, *43*(5), 814–823. https://doi.org/10.1007/s10964-013-0013-7

Rossiter, M. D., Evers, S. E., & Pender, A. C. (2012). Adolescents’ diets do not comply with 2007 Canada’s food guide recommendations. *Appetite*, *59*(3), 668–672. https://doi.org/10.1016/j.appet.2012.07.018

Slater, J. (2017). Food literacy: A critical tool in a complex foodscape. *Journal of Family and Consumer Science*, *109*(2), 14–20.

Slater, J., Falkenberg, T., Rutherford, J., & Colatruglio, S. (2018). Food literacy competencies: A conceptual framework for youth transitioning to adulthood. *International Journal of Consumer Studies*, *42*(5), 547–556. https://doi.org/10.1111/IJCS.12471

Vanderlee, L., & L’Abbé, M. R. (2017). Food for thought on food environments in Canada. *Health Promotion and Chronic Disease Prevention in Canada* (Vol. 37, Issue 9, pp. 263–265). Public Health Agency of Canada. https://doi.org/10.24095/hpcdp.37.9.01

Vidgen, H. (2016). A definition of food literacy and its components. In *Food Literacy: Key Concepts for Health and Education* (pp. 10–35). https://www.scopus.com/inward/record.uri?eid=2-s2.0-84978452372&doi=10.4324%2F9781315708492&partnerID=40&md5=a39e461b127722cd46f9d54d0dc4df5a

# From Future Proofing to Future Education in Home Economics Education

## Dr. Mary Gale Smith

University of British Columbia

A few years ago, several references appeared on the International Federation of Home Economics (IFHE) web site about future-proofing the profession. The 2008 IFHE position statement included the following definition of future proofing, “anticipating future developments to minimize negative impacts and optimize opportunities” (IFHE, 2008). In the following paper, I would like to discuss future proofing. This term doesn’t sit well with me, perhaps because it was borrowed from business, engineering, architecture, information technology where “hard” scientific and technocratic rationalities dominate. Do we really want to use this term? How about being better prepared to anticipate complexity and getting ready to make changes as necessary, or talking about becoming a future-building or future-making profession rather than a future proof profession? In this paper I explore how future proofing has been used, discuss why I think it is problematic and suggest alternatives that may be more appropriate for home economics.

**What does Future-Proofing Mean?**

The term future-proof has rapidly gained currency in the past 15 to 20 years. A simple Google search yields close to a billion hits. A search using Global Scholar shows it first appeared in 1967, slowly gained in popularity, and exploded in use in the last 10 years (see Fig. 1).

Figure 1

*Use of future proof in Google Scholar*



*Note: These were simple searches for articles that included “future proof”, “future-proof”, and “future-proofing).*

The use of the term future proof most likely started in the technology industry in reference to designing computer programs, electronics, data storage, and utility systems that wouldn’t become obsolete. It has spread to business management, cities, buildings, infrastructure, supply chains, medical industry, industrial design, and more recently, in designing adaptations tor climate change (Rich, 2014). It is creeping into the professions and education.

The use of the term in home economics appeared around the time the 2008 position paper on home economics was constructed for the International Federation for Home Economics. The position paper stated:

The focus on the decade ahead is on **future proofing**, which describes the elusive process of trying to anticipate future developments, so that action can be taken to minimise possible negative consequences, and to seize opportunities. **Future proofing** the home economics profession and the Federation is a challenging task but one which is necessary to ensure a sustainable vision both for the profession, and for individual members. (IFHE, 2008, p. 2)

Since then, it has appeared more frequently both in the titles of articles and in the text of the papers. The following are examples of Home Economics titles with “future proof” or “future proofing”.

* *Future proofing: Transdisciplinary ambassadors for the human condition: A Response to the IFHE Position Statement Home Economics in the 21st Century* (McGregor, 2008).
* *Generational theory and home economics: Future proofing the profession*. (Pendergast, 2009).
* *The intention of home economics education: A powerful enabler for future-proofing the profession* (Pendergast, (2012).
* Name changes and future-proofing the profession: Human Sciences as a name? (McGregor, 2010).
* *A systems approach to food future-proofs the home economics profession.* (Kolodinsky, 2012).

A number of home economics articles have also referred to future proofing (e,g., Caraher, 2019; Dewhurst & Pendergast, 2009; Dixon, 2017; Jarva, 2012; Kudo et al., 2021;Lorek & Wahlen, 2012; Ma & Pendergast, 2011; McGregor 2018, 2020; Magee et al, 2010; Pendergast, 2021; Turkki, 2015).

**Defining Future Proofing**

A typical dictionary definition of future proofing includes phrases such as: make (a product or system) unlikely to become obsolete or fail in the future; to design software so that it can used in the future even when technology changes; to make something in such a way that it will not become ineffective or unsuitable for use in the future; to design something so that it will not easily be replaced by something newer or more effective in the future; to describe a product service or technological system that will not need to be significantly updated as technology advances. In general, the term "future proof" refers to the ability of something to continue to be of value into the distant future. The concept of future proofing is the process of anticipating the future and developing methods of minimizing the negative effects and taking advantage of the positive effect of shocks and stresses of future.

**Why Future Proofing is Problematic**

Three questions come to my mind in a description of future proofing: Has it has become a buzzword? Is it used as a slogan system? Is it an oxymoron?

Is it a **buzzword**? According to Technopedia™ future proof is a buzzword. Malyuga and Rimmer (2021) outline the main characteristics of buzzwords as: they are chiefly coined within a certain (usually professional) community; they gain wide acceptance by being used often; and their semantics is ambiguous for various reasons. A *buzzword* is fashionable in a particular field and is used a lot by the media. It becomes stylish, popular, or trendy for a time but may have little meaning. In marketing, buzzwords are described as being more about “style than substance”. This creates a potential phenomenon known as “*buzzword backlash*, whereby the tide turns against a buzzword and it starts to fade from usage” (Marketingterms.com).

Is it a **slogan system**? For Popkewitz (1980) some concepts become slogan systems when high-profile terminology is adopted to obtain benefits from its contemporary popularity. As catchy phrases they are often adopted without regard for the underlying values or social interests being served. Robottom (2007) warns that slogans can be used to justify a lot of activity at the level of language, but are more of a symbolic act without leading to any real or lasting change.

Is it an **oxymoron?** Brown (2005) concurs with this description in examining how future proofing is used with reference to information technology and education. An oxymoron is a figure of speech in which apparently contradictory terms appear in conjunction. If something is fireproof, it won’t catch on fire. If it’s bulletproof, no bullets can penetrate. So “proof” means impervious, or resistant to, or unable to be damaged by. Therefore, future proof could mean impervious or undamaged by the future. If you’ve lived and worked through this latest pandemic, then the phrase “future proofing” may sound at the least paradoxical, and at the most, oxymoronic.

Rich (2014) suggests if future proof is unpalatable, perhaps “resiliency” is a possibility since they are very similar concepts. The terms still need to be explained how they are used, and what their use means. For example, Smith and de Zwart (2017) used the term social resilience to describe how home economics education has managed to survive despite continual threats in the province of British Columbia. They used the explanation offered by Keck and Sakdapolrak (2013) who outlined three attributes of social resilience in terms of capacities: *Coping capacities* –the ability of social actors to cope with and overcome all kinds of adversities; *Adaptive capacities* – their ability to learn from past experiences and adjust themselves to future challenges in their everyday lives; and *Transformative capacities* – their ability to craft sets of institutions that foster individual welfare and build sustainable societal robustness towards future crises. Whatever word is used, it is important to avoid ambiguity.

**Alternatives to Future-Proofing for Home Economics Education**

What other terms might be considered appropriate? Pöllänen and Urdziņa-Deruma (2017) used **future-oriented** in discussing craft education. They advocated a shift in perspective from tradition based individualistic education emphasizing end-product and skill development, to education oriented to creating novel responses to the challenges of the current and future world.

Ulicsak and Facer (2012) chose **future-building** rather than future-proofing in describing whole school approaches to future education. They expressed concern that future-proofing requires schools to adapt to futures designed elsewhere rather than developing agency for individuals and communities to address social justice issues locally.In future-building the goal is for students to explore the futures being built by today’s social, technological, political, and economic trajectories and make a case for the best alternatives from their perspectives.

Burnard and Colucci-Grey (2019) use **future-making** in discussing “maker education” movements such as STEM (integration of Science, Technology, Engineering, Mathematics) and STEAM (STEM with Arts added). They see future-making as enabling students to address complex societal questions and education, laying the blocks and foundations so students can create a new Earth in which to retreat and find shelter. Ingold (2019) points out that future-making education “brings generations together in the common task of making a future for all, rather than preparing a single-generational cohort for a future that already lies in wait for it” (p. 437).

Hicks uses terms such as “**teaching for tomorrow**” (2006) and “**lessons for the future**” (2004). He reminds teachers of the importance of setting topics in both temporal and special dimensions (Fig. 2) in response to the emphasis on presentism which leads to maintenance of the status quo, an emphasis on technological fixes, and prioritizing western knowledge. Hicks recommends education that encourages students to discover or invent, examine, and evaluate, and propose possible, probable and preferable futures based on an understanding of time and space. Similar to Dixon (2017), he stresses the importance of pedagogical approaches that emphasize hope.

Figure 2

*Spatial and Temporal Dimensions*



*Note:* Hicks (2004 p. 175)

The **Seventh Generation Principle** is an example of how the temporal dimension can be explained and used to discuss the future. It is an Indigenous concept, which refers to remembering the seven generations who came before you and thinking of the seven generation coming after you through words, work and actions,

Drake et al., (1992) also advocate an education that presents a more wholistic view of the curriculum topics. It is a more elaborate version of the dimensions for curriculum planning and emphasizes agency in the sense that student can take action to create a new story.

Figure 3.

*Developing an integrated curriculum using the Story Model*.

****

Note: Drake et al. (1992).

Ahvenharju et al. (2018) stress the importance of developing **future consciousness.** defined as:

the capacity that an organization or an individual has for considering future consequences, having a sense of empowerment towards influencing their courses of action, openly assessing alternative courses, approaching problems from a holistic and systemic point of view, and striving for a better future not only for the self but for all of humanity (p. 18).

They outline five dimensions of future consciousness:

1. Time perspective, understanding all three aspects of time: past, present and future
2. Agency beliefs, shared assumption that it is possible to influence the future through individual or collective agency
3. Openness to alternatives, the critical and creative capability of embracing and appreciating change, seeing the value of alternative ways, and questioning established truths
4. Systems perception, the ability to think about situations in a comprehensive way, taking into account the relationships between the elements of a situation or the interdependence of systems.
5. Concern for others, values, morals and ethical thinking, emphasizes the capacity for being concerned about and committing oneself to bettering not only one’s own future, but the future of others, of society, and even the future of generations yet unborn. (Ahvenharju et al., 2018, pp. 12- 15)

With the rise of “new” literacies it is not surprising to see the mention of **future literacy**. Häggström and Schmidt (2021) have created a future literacy model for students based on developing four resources: the ability to envision a future; the ability to identify future competences; the ability to orchestrate actions; and the ability to critically examine actions. The authors recommend pedagogical approaches that are active- and sensory-based, rather than passive, fact-and-information-based approaches.

**Conclusion**

This is just a sampling of literature that draws attention to the language we use. I suggest there are alternative, appropriate, and defensible terms other than future proofing to guide home economics education. Use of future proofing is inconsistent and some of authors who use that term also used alternatives. For example, Pendergast (2021) uses “future shaper,” McGregor (2014) refers to “creating a future.” Both authors emphasize agency and action. One thing is clear, future education needs to be part of a wholistic approach to home economics education. It needs to value critical and creative thinking required to address social and ecological issues to make a better future for everything living thing on this planet.

**References**

Ahvenharju, S., Minkkinen, M., and Lalot, F. (2018). The five dimensions of Futures Consciousness. *Futures,* *104,* 1–13. Doi: 10.1016/j.futures.2018.06.010

Brown, M. (2005). Telling tales out of school: The political nature of the digital landscape. *E-Learning communities: Teaching and learning with the Web*, 23-38.

Caraher, M. (2019). Home Economics—A personal reflection on 30 years of work, friendships and the future. *Journal of the Home Economics Institute of Australia, 25*(2).

New Zealand. *International Journal of Home Economics, 10*(1), 12-20.

Drake, S. M., Bebbington, J., Laksman, S., Mackie, P., Maynes, N., & Wayne, L. (1992). *Developing an integrated curriculum using the Story Model.* Toronto, ON: OISE Press.

Dewhurst, Y., & Pendergast, D. (2009). Daring to lead: global perceptions of the IFHE Position Statement: Home Economics in the 21st Century. *Journal of the Home Economics Institute of Australia*, *16*(2), 21-32.

Dixon, R. (2017). Teachers' hopes for the future of home economics education in New Zealand. *International Journal of Home Economics*, *10*(1), 12-20.

Häggström, M., & Schmidt, C. (2021). Futures literacy–to belong, participate and act! an educational perspective. *Futures*, *132*, https://doi.org/10.1016/j.futures.2021.102813

Hicks, D. (2006) *Lessons for the future: The missing dimension in education*, Victoria BC: Trafford Publishing.

Hicks, D. (2004). Teaching for tomorrow: how can futures studies contribute to peace education? *Journal of Peace Education*, *1*(2), 165-178.

Hicks, D. (2003). Thirty years of global education: A reminder of key principles and precedents. *Educational review*, *55*(3), 265-275.

Hicks, D. (2010, July). The long transition: Educating for optimism and hope in troubled times. In *3rd annual conference of the UK teacher education network for education for sustainable development/global citizenship* (pp. 1-28).

Ingold, T. (2019). What Knowledge Do We Need for Future-Making Education? In *Why Science and Art Creativities Matter* (pp. 432-439). Brill.

Jarva, V. (2012). Home Economics, mega-crises and continuity. In *Creating Home Economics Futures: The Next 100 Years* (pp. 143-156). Bowen Hills, QLD: Australian Academic Press.

Keck, M., & Sakdapolrak, P. (2013). What is social resilience? Lessons learned and ways forward. *Erdkunde*, 5-19.

Kolodinsky, J. (2012). A systems approach to food future proofs the home economics profession. In *Creating Home Economics Futures: The Next 100 Years* (pp. 157-169). Bowen Hills, QLD: Australian Academic Press.

Kopnina, H. (2020) Education for the future? Critical evaluation of education for sustainable development goals. *The Journal of Environmental Education*, *51*(4), 280-291, doi:10.1080/00958964.2019.1710444

Kudo, Y., Ogura, I., & Kishimoto, Y. (2021). Living in the Corona age: A new normal perspective of Japanese home economics. *International Journal of Home Economics*, *14*(1), 66-76.

Lorek, S., & Wahlen, S. (2012). Sustainable consumption through an environmental lens: Challenges and opportunities for home economics. *Creating Home Economics Futures: The Next 100 Years* (pp. 170-181). Bowen Hills, QLD: Australian Academic Press.

Ma, A., & Pendergast D. (2011). The past, the present and the preferred future for home economics education in Hong Kong. *International Journal of Consumer Studies,* *35*(5), 589-594.

McGregor, S. L. (2008). Future Proofing: Transdisciplinary ambassadors for the human condition: A response to the IFHE Position Statement Home Economics in the 21st Century. *International Journal of Home Economics*, *1*(1), 25-31.

McGregor, S. L. (2010). Name changes and future-proofing the profession: Human Sciences as a name? *International Journal of Home Economics*, *3*(1), 20-37.

McGregor, S. L. (2011). Home economics in higher education: pre‐professional socialization. *International Journal of Consumer Studies*, *35*(5), 560-568.

McGregor, S. L. (2012). Next Practice: Innovations in Family and Consumer Sciences. *Journal of Family and Consumer Sciences*, *104*(1), 46.

McGregor, S. L. (2014). A look inside creating home economics futures: The next 100 Years. *International Journal of Home Economics*, *7*(1), 66-76.

McGregor, S. L. (2018). Home Economics Baby Boomer professors in retirement: inaugural study. *International Journal of Home Economics*, *11*(1), 54-71

Magee, M., Yoo, T. M., Mok, C. F. J., & Washi, S. (2010). Collective empowerment of the home economics profession-Equipping the profession with advocacy, futures creation and leadership. *International Journal of Home Economics*, *3*(1), 38-52

Malyuga, E. N., & Rimmer, W. (2021). Making sense of "buzzword" as a term through co-occurrences analysis. *Heliyon*, *7*(6), e07208. https://doi.org/10.1016/j.heliyon.2021.e07208

Neuwirth, R. J. (2022). Future Law, the Power of Prediction, and the Disappearance of Time. *Law, Technology & Humans*, *4*(2) 1-18. https://doi.org/10.5204/lthj.2376

Pendergast, D. (2009). Generational theory and home economics 1: future proofing the profession. *Family and Consumer Sciences Research Journal*, *37*(4), 504-522.

Pendergast, D. (2012). The intention of home economics education: A powerful enabler for future-proofing the profession. In *Creating Home Economics Futures: The Next 100 Years* (pp. 12-23). Bowen Hills, QLD: Australian Academic Press.

Pendergast, D. (2021). The role of home economics education in the 21st century: the Covid-19 pandemic as a disruptor, accelerator, and future shaper. *CEPS Journal*, *11*(4), 13-32.

Pöllänen, S., & Urdziņa-Deruma, M. (2017). Future-oriented reform of craft education. In *Reforming teaching and teacher education* (pp. 117-144). Brill

Popkewitz, Thomas S. (1980). Global education as a slogan system. *Curriculum Inquiry, 10*(3), 303-316.

Rich, B. D. (2014). Principles of future proofing: a broader understanding of resiliency in the historic built environment. *Preserv Educ Res*, *7*, 31-49.

Robottom, I. (2007). Think Piece. Re-badged Environmental Education: Is ESD more than just a slogan?. *Southern African Journal of Environmental Education*, *24*, 90-96.

Smith M.G.& de Zwart, M.L. (2017). A perfect storm or never say die: Home economics education in British Columbia. *International Journal of Home Economics (IJHE), 10*(1), 162-173.

Smith, M. G. (2017). How Language Writes Us: A Retrospective. *Proceedings of the*

*Canadian Symposium XIII. Issues and Directions for Home Economics/Family Studies Education*, London, ON. https://www.ca-symposium.com/proceedings

Sterling, S. 2009. Towards sustainable education. *Environmental Scientist* ,*18*(1) 19–21.

Technopedia (n.d.). Buzzword. (ttps://www.techopedia.com/definition/2204/future-proof).

Turkki, K. (2015). Envisioning literacy to promote sustainable wellbeing: Home economics perspectives. *Responsible Living: Concepts, Education and Future Perspectives*, 151-178.

Ulicsak, M., & Facer, K. (2012). Whose educational futures? Widening the debates. In *Transformative Approaches to New Technologies and Student Diversity in Futures Oriented Classrooms* (pp. 171-189). Springer Netherlands.

# Issues and Directions in Home Economics Education: The HEEL Papers

## Dr. Mary Gale Smith and Dr. Mary Leah de Zwart

University of British Columbia

In 2011, UBC introduced a completely on-line Masters of Education in Home Economics program. It was subtitled Human Ecology and Everyday Life (HEEL). To date, over seventy students from across Canada and one international student have graduated from the program. The program is part-time and with a cohort admitted every two years. The culmination of program is the completion of a major paper/project. A preliminary content analysis of the seventy plus papers/projects has been used to determine what issues and directions are most prominent in the minds of the home economics teachers in the HEEL program.

**Demographic Information**

Over half of the graduates were from British Columbia, 10 from Saskatchewan, four each from Ontario and Manitoba, three each from Nova Scotia and Alberta, one from each of New Brunswick, Prince Edward Island, the Yukon, and Jamaica. Two HEEL students from BC reported on experiences teaching in Nunavut. All but one of the graduates were teachers working in public or private schools. Some had undergraduate experience studying home economics or home economics related courses (e.g., psychology, sociology, food studies, nutrition, health, textiles and design). Others were teachers-out-of-field teaching home economics/family studies/ human ecology seeking further professional development in the subject area. And some were elementary teachers interested in ways to integrate home economics in the younger grades – kindergarten to middle school.

**Methodology**

Our goal in this paper is to consider the graduating papers of the HEEL program as artifacts to be analyzed. Our methodology is qualitative content analysis (Elo & Kyngäs, 2008). This report is a preliminary analysis of the graduating papers, designed (1) to describe the content of the of the graduating papers, and (2) identify the types of research conducted by students in the HEEL program. Content analysis was employed to sift through large volumes of data with relative ease in a systematic fashion to examine trends and patterns.

According to Krippendorff (1980), six questions must be addressed in every content analysis (see Table 1):

*Table 1. Six Questions for Content Analysis*

|  |  |
| --- | --- |
| Which data are analyzed? | The graduating papers from the HEEL program 2014-2023 |
| How are they defined? | Major papers produced by students who graduated from the HEEL program |
| What is the population from which they are drawn? | Certified home economics/family studies/human ecology teachers, certified teachers who are interested in home economics/family studies/human ecology enrolled in the HEEL program  |
| What is the context relative to which the data are analyzed? | The context is home economics/family studies/human ecology education |
| What are the boundaries of the analysis? | Only the papers from 2012 – 2023 (April 30th). Only the directions, issues and type of research were identified  |
| What is the target of the inferences? | To inform the purpose of the Canadian Symposium 2023 in Saskatchewan (issues and directions for home economics/family studies/human ecology) |

The most common technique of content analysis is a frequency count. The underlying assumption of this method is the items mentioned most often reflect the greatest concerns.

**Types of Research Conducted by Students in the HEEL program**

HEEL graduating papers/projects used a variety of research methods with the most commonly used located under the umbrella of teacher action research (45 %). A variety of types and forms of teacher action research are possible with one commonality that all forms involve actively engaging the participants in improvement of their own practice. HEEL students used self-study, narrative, a/r/tography, autoethnography, teacher inquiry, and analysis of critical incidents. About one in four of the HEEL graduates (24%) chose to do a graduating paper/project in the form of creating a resource to be shared with other teachers on a topic related to improving teaching practice (e.g., project- based learning; Gardner’s Multiple Intelligences and Five Minds; sustainable practices for teaching culinary arts in cafeteria; ways to infuse HE in elementary grades; home economics for the middle school). Eight percent chose curriculum analysis and the same number chose to do survey research. Conceptual research involving philosophical exploration of a key concept (e.g., service learning, food literacy, school feeding program) was selected by seven percent. Four percent did extended literature reviews aimed at develop a deep understanding of a particular topic (e.g., the effects of poverty on education; impact of school connectedness; sustainable living). One student conducted a quasi-experimental study on the notion of choice in food studies, another documented the construction of school garden. The papers are diverse in range of topics and styles.

The Department of Curriculum and Pedagogy (EDCP) at the University of British Columbia accepts:

* action research (self study, a/r/tography, etc.)
* a synthesis or critical analysis of professionally relevant literature;
* an exploration of a curriculum-related problem and a proposal for addressing it;
* an application of theories and concepts to a specific curriculum context;
* a critical analysis of existing policies or programs, culminating in a proposal for
* innovative curriculum or pedagogy;
* a relevant creative project that also has educational application and relevance;
* the production of media to be used in an educational or policy context;
* or some other possibility to be discussed with your supervisor (EDCP website).

We use graduating papers or graduating project interchangeably and sometimes combine them into paper/project. Those that are called projects usually involve creating specific resources that can be shared with other home economics teachers but they also include chapters such as literature reviews and research methodology, introductions and conclusions so in that sense they are also papers. They are sometimes referred to a capstone projects because they are culminating projects/papers of a graduate studies and they involve independent research to address a problem related to home economics curriculum and pedagogy.

**Main Content Areas of Interest for HEEL Papers/Projects**

Most of the students in the HEEL graduate program are practicing home economics teachers it is not surprising that their graduating projects related to Home Economics/Family Studies/Home Economics Education.

* 38% were topics related to general Home Economics teaching methodologies
* 34% were topics related to Food Studies
* 15% were topics related to Textile Studies
* 13% were other topics (e.g., integration of HE in elementary settings; family studies; culinary arts; school feeding programs; impact of poverty, vocational programs; HE history; community programs)

**The Content of the HEEL Papers/Projects**

This preliminary analysis identified several current directions and issues for the field of home economics education. The major theme that emerged from this group of scholars centered on improving the curriculum and pedagogy of home economics/family studies/human ecology education at the school level. The directions focussed mainly on i) improving curriculum content; and ii) teaching approaches beyond transmission. The main issues in the papers were to i) teacher identity and professional development; ii) social justice, decolonization and Indigenization.

As the HEEL students became more familiar with the history of home economics, and with social, political and educational movements past and present, the first most common topic was exploration of moving home economics teaching practice beyond the stereotypical stitching, stirring emphasis on techniques and products. Three main content directions became apparent, with the intention to emphasize and strengthen them:

* ecology as a unifying theme, environmental sustainability and sustainable living
* content that is culturally relevant/responsive, decolonized, indigenized
* “new literacies” - critical literacy and mindfulness; food literacy; agricultural literacy; textile literacy; ecoliteracy; media literacy.

The second most common direction related to teaching approaches other than teacher centered transmission. Recommendations included emphasizing and strengthening the following:

* active learning, constructivist, and student-centered approaches such as
* project based learning
* cooperative learning
* contextual learning
* experiential learning
* personalized learning
* differentiated learning
* nature based, place-based pedagogies and land-based learning
* critical thinking approaches and ways to teach controversial social justice issues

**Issues Raised in the HEEL Papers**

In reviewing the papers, three main issues prevailed: home economics teacher professional development (e.g., providing resources for teachers; preventing teacher burnout and demoralization); how to address decolonization and Indigenization; strengthening social justice.

**Conclusion**

This is a cursory overview of the research conducted by HEEL students to fulfill the graduating paper/project requirement of their program. It demonstrates the depth and diversity of the research of HEEL graduates and the capacity to make a significant contribution to the field. As it is the only program of this kind in Canada, further analysis that includes attention to the challenges of on-line learning for instructors and students and students, how the program is perceived by students, and assessing the academic content of the program is recommended for the future. In the meantime, we would like to see some form of repository where the graduating papers would be more readily available for discussion and debate.

**References**

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, *62*(1), 107-115.

Krippendorff, K. (1980*). Content Analysis An Introduction to Its Methodology*. Beverly Hills, CA: Sage Publications, Inc.

Smith, M. G. & de Zwart, M. L. (2015). Enhancing Research in Home Economics Education Through an On-Line Masters Program*.* In *Proceedings of the Canadian Symposium XII. Issues and Directions for Home Economics/Family Studies Education*, Winnipeg, MN. https://www.ca-symposium.com/proceedings

**Appendix**

**Graduates of the HEEL Program (2014 – present)**

**Major Paper Topics**

Gayle Abbott-Mackie (BC)- Investigating the Use of Facebook In The Home Economics Classroom

-teacher action research - monitored her own practice using a Facebook site, analyzed Facebook postings, interviewed students & other teachers. [HEEL 1]

Robin Abra (BC) - *My Pedagogical Journey with Mindfulness*

- self-study, narrative inquiry, a/r/tography - investigates three applications of mindfulness: as teacher self-care, reflective practice, and transforming learning. [HEEL 5]

Nicole Angus (0nt.) - *An Analysis of Experiential Learning Opportunities in Home Economics Education*

 - curriculum analysis – examined the Ontario Family Studies curriculum guide for evidence of experiential learning using David A. Kolb’s Theory of Experiential Learning and a framework for analysis. [HEEL 2]

Erin Barclay (BC) - *E*xploring The Webs Of Life In Classroom Teaching: Ecology As A Unifying Theme In Home Economic*s*

-narrative - account of teaching activities that integrate ecological topics in the foods classroom. [HEEL 2]

Katia M. Basque (Nova Scotia) – *Ecology as a Unifying Integrative Theme in Grade Primary*

 - project – applied Eleanore Vaines’ “ecology as a unifying themes for home economics to teaching in Grade primary in a creating a resource for teachers. [HEEL 4]

Christina Bazell (AB) - *How to Survive a Zombie Apocalypse: Using Popular Culture in Youth Transitional Courses*

-project – developed resources using zombie apocalypse as a theme to engage students in transition education with the challenging subject matter of career planning and independent living. [HEEL 3]

Stephanie T. Bensley (BC) - Contextual Teaching and Learning in the Home Economics Classroom

-a self study - trying out contextual teaching and learning in her teaching and reflecting on the process. [HEEL 2]

Lauren Belonio (BC) - The Long- Term Impact of Nutrition Education on Students’ Food Attitudes and Food Choices

-survey - used snowball recruiting technique from a Facebook site to contact former students who completed an on-line survey about what they found useful in their later lives as a result of taking Foods and Nutrition in school. [HEEL 1]

Crystal Bodfish (MN) - *Technical Skills in High School Clothing Courses*

-project – conducted a curriculum and textbook content analysis to set the context for determining ways to teach technical skills using meaningful learning experiences. [HEEL 3]

Chrissy Birchett (BC) - *Curriculum and Pedagogy in Wellness Education: A Proposal for a Wellness Course for Grade 11/12 Students in BC*

-project – developed the outline for a wellness course that combines nutrition and fitness. [HEEL 6]

Kate Budgell (BC) - *Linking Multiple Intelligence and the Five Minds to the New BC Home Economics Curriculum*

- project – developing lessons to illustrate facilitating the theorizing of Gardner’s Multiple Intelligences and Five Minds as ways to move beyond the technical/transmissive emphasis of home economic courses. [HEEL 3]

Brenda Cameron (NB) - *Exploring Students’ Sense of Well-Being in High School Fashion Technology Classes: A Pilot Study*

 - survey research – modified an existing survey on student well-being to determine whether practical courses enhance students’ sense of well-being in school (required ethical approval and school district approval) [HEEL 5]

Heather Clark (BC) - *Handcrafting a Jacket: An Exploration of the Pedagogy of Handcrafting in the Textile Classroom*

 - a/r/tography – used handcrafting a jacket as a form of teacher inquiry to explore the textile pedagogy at the intersection of artist (handcrafter), teacher and researcher. [HEEL 4]

Jaelise Crittenden (Sask) - *Advocating for School Food Programs: A Resource to Assist Implementation*

 - extended literature review – synthesized the literature into a resource for teachers involved in school feeding programs. [HEEL 4]

Richard Dean Crouse (BC) - The Evolution of “Humanities and Travel”: Enhancing Curricular Connections in School Sponsored Student Funded Travel

-project - developed a study guide for school sponsored travel. [HEEL 1]

Amy Dash (BC) - *Bumping up Against Grand Narratives: A Self-Study*

-self study/narrative – uses personal autobiographical experience to explore what it means to teach from an Indigenous worldview [HEEL 5]

Cara Denham (BC) - *Teaching about Controversial Issues in Food Studies 12: A Self-Study Action Research Project*

- teacher action research – was concern about how to teach controversial issues without becoming part of the controversy so tested teaching strategies designed to promote critical thinking. [HEEL 3]

Tara deLeeuw (BC). The Art and Soul of Home Economics

-a/r/tography - exploration of the finding the soul in education and home economics. [HEEL 2]

Meghan Dehghan (BC)- Towards More Sustainable and Environmentally Responsible Practices in Teaching Cafeterias

-project - developed a handbook for Culinary Arts instructors. [HEEL 1]

Kelly De Roo (Manitoba) - *Understanding the Academic and Social Experiences of English Language Learners in Home Economics*

 *-* focus group research – interviewed former ELL about their experience being integrated in regular classes for ways to improve teacher practice in home economics. [HEEL 5]

Lorraine Dulder (Manitoba) - Food and Nutrition: A Constructivist Approach

-project/self study - described the changes she made in her program to make it more student centered. [HEEL 1]

Rosie Dyck (Sask) - *Navigating Liminal Space: My Journey Towards Becoming a Home EconomicsTeacher*

- self-study, narrative inquiry, and a/r/tography - explored the concept of liminal space and how it shapes understandings of curriculum and pedagogy. [HEEL 3]

Susan Enns (BC) - *The Impact of Poverty on Children’s Educational Potential*

- extended literature review – a thorough examination of the literature to create a comprehensive portrayal of the depth of the impact of poverty in education and make recommendations for action. [HEEL 3]

Michelle Gau (AB) - The Effects of Choice in a High School Foods Lab

- quasi-experimental - taught 3 units of foods using different approaches to foods labs - no choice, teacher determined the recipes; limited choice, students could choose from a range of recipes or ingredients; complete choice, students chose the recipes to demonstrate learning outcomes.  Followed up with a questionnaire to determine students response. [HEEL 1]

Emily Gargarella (ON) - *Layers of Experience in Home Economics Education: A Self Study*

-self study – reflected on Parker Palmer’s (1997) comment that knowing one’s self is as critical to good teaching as knowing your students and the subject, to explore the layers of life experiences and how they have shaped her values and practices as a the home economics/family studies educator. [HEEL 6]

Ravijot Kaur Gill (BC) - *Murmurs, Echoes and Reverberations of Becoming a Culturally Responsive Teacher in a Home Economics Context*

-reflective self-study – uses personal experiences teaching home economics in an alternative school to demonstrate her evolution as a culturally responsive Home Economics educator. [HEEL 5]-

Amber Hampe (BC)- Towards an Understanding of Significance of Providing Food in an Educational Setting

-conceptual research - argues that research on connectedness in schools overlooks the significance of food [HEEL 1]

Catherine Hay (BC) - The supportive classroom: Supporting students’ progress toward meeting academic and behavioural expectations in the Home Economics classroom

-action research/self study – investigated ways to improve her classroom management by exploring the link between standards based teaching and positive behavioral supports. [HEEL 1]

Kendra Henderson (BC) – Project Based Learning and Home Economics Education

-project - created lessons using a lesson plan remodelling process to show the potential of project- based learning for home economics. [HEEL 1]

 Anqi Betty Hyatt-Shaw (BC) - *Reflection on the Role of Crafting in* *School:Telling My Story*

*-* self study - investigates the purpose and effects of textile arts and craft on student well-being in the home economics related settings [HEEL 5]

Hardeep Khosa (BC) - *Family Studies Curriculum Changes: Matching Societal Needs?*

- curriculum content analysis - investigated the question “is Family Studies curriculum relevant in light of current societal issues and concerns related to family well-being?” [HEEL 3]

Lauri Humeniuk & Trevor J. Randle (BC) - Curriculum and Pedagogy in Culinary Arts Education: A Course Proposal

-project - developed a rationale and theoretical framework for a third/fourth year course for chefs who work in the unique pedagogical space of teaching cafeterias. [HEEL 2]

Samantha Johnson (BC) - *Male Enrolment in Textiles Classes: What Can be Done to Increase Enrolment?*

- critical examination of gender bias in current textiles curriculum followed by recommendations to make textiles studies more gender sensitive. [HEEL 3]

Susie Johnson (BC/Nunavut) - *Food (in)security in the Canadian Arctic: A home economics educator’s narrative journey*

- self study narrative inquiry – uses stories from experiences teaching in Nunavut to explore food (in)security and the role of home economics education in addressing this problem. [HEEL 2]

Jordana Kokoszka (BC)- Infusing Critical Thinking in Home Economics Education

- teacher inquiry project – tried out various critical thinking activities to move beyond the technical emphasis in foods and textiles classes and monitored the effects. [HEEL 2]

Janna Kostelyk (BC). Seeking Food Fluency in the Home Economics Classroom

- conceptual/self study - argues for food fluency as a broader concept than food literacy and includes personal experiences with the concept in a foods program. [HEEL 2]

Nicole Kuemmerle (BC). Exploring Sub-concepts in Sustainability for Home Economics Education: Two Case Studies

- narrative - an account of a textiles program and a foods program where the concept of sustainability was implemented using the sub-concepts of collaborative consumption and upcycling. [HEEL 2]

Kelsey Kwong (BC) - Service-learning and home economics: A philosophical exploration

- conceptual research - argues for service learning that is based in an ethics of care as most appropriate for home economics. [HEEL 1]

Audra Loessin (Sask) - *Exploring the Work of the Canadian District Home Economist*

- historical research – surveyed former District Home Economists to document the type of work they did, highlighting how women’s ‘knowledge’ has contributed to family and community well-being. (HEEL 4)

Nikita McElgunn (BC) - *Implementing personalized learning in home economics education*

- project - conceptualizing and creating a practical resource book for Home Economics/Human Ecology (HE) teachers to implement personalized learning in their classroom. [HEEL 3]

Sarah McIntosh (PEI). *Nurturing an Ecological Perspective in PEI Home Economics Education: A Narrative Self-Study*

- critical incident analysis – describes three incidents in her practice to identify impediments to implementing ecological content effectively and makes recommendations for improvement. [HEEL 2]

Karen McIsaac (Nova Scotia) - Inspiriting Human Ecology/Home Economics and Everyday Life: Telling My Story

-narrative/self study - uses three personal stories to explore the concept of "inspiriting" teasing out concepts filled with spirit, wholism and embodiment. [HEEL 1]

Chantel Mack (Sask) - *Exploring Maker Education in Clothing, Textiles and Fashion Classes*

 - teacher action research – added a “maker challenge” to her Clothing, Textile and Fashion course and explored the how maker-centered education can inform home economics education. [HEEL 4]

Jessica Mann (BC) - *A Case for Composting at School: Food System Literacy and Sustainability Education in Action*

 -mixed methods project – case study of composting as part of a culinary arts program with a school garden resulted in a comprehensive guide for composting in schools [HEEL 6]

Lindsay May (BC) - *A Case for an Interdisciplinary Approach to Teaching Food Studies 12 and Social Justice 12*

-project – used Patricia Thompson’s Dual Helix systems thinking to create a rationale for teaching Food Studies and Social Justice 12 in an alternate school setting. [HEEL 6]

Katherine Meier (BC) - *Canada’s Food Guide and its Role in Home Economics Education*

-project – researched the history of food guide development and created a teaching resource for using the latest CFG in Food Studies. [HEEL6]

 Brianne Melnyk (BC) - *Empathy and Home Economics Education: Transformation and Emancipation*

- curriculum and conceptual analysis – explored the concept of empathy and the way it is used in the current BC Curriculum document seeking best practices for its use in Home Economics education. [HEEL 4]

Brianne Miller (BC) - *No Grades Assessment in Home Economics Classrooms*

-self study – describes how she implemented a no-grades policy in her classroom and discusses the implications for her teaching practice. [HEEL 3]

Camille Mohn (BC) - *Nurturing Biophilia: Home Economics in the Elementary Classroom*

 **-** teacher action research- showed how home economics concepts, particularly food studies, can be integrated at the elementary level using the theme “the world is our home” and the natural environment to foster biophilia and sustainable living. [HEEL6]

Anna Niessen (SASK) - *Struggling with the Imperfect – Exploring the Autobiographic Texts of a Teacher*

- self study/autoethnography - written in narrative style, it inquiries into Parker Palmer’s (2007) comment, “We teach who we are”, stressing the importance of teachers exploring their inner lives, and the effects on classroom practice. [HEEL 2]

Megan Owens (BC) - *All My Relations: A Wholistic Perspective for Decolonization in Home Economics*

 -conceptual research – explored how “All my relations” as a way of knowing encourages respect and responsibility for human, plant, and animal teachers equally can guide research, curriculum and pedagogy. [HEEL 6]

M.E. Diane O’Shea (ON) - Closing the gap: identifying issues in Family Studies teacher education in Ontario and providing a beginning solution

- project - created a handbook on managing a foods lab for beginning teachers. [HEEL 1]

Amy Parkinson (Sask) - Empowering Students through Critical Thinking:  Media Education’s Role in Home Economics

- project - explored the importance of media education in bringing more critical thinking into home economics. [HEEL 1]

AnnaLee Parnetta (Sask) – Incorporating Agricultural Literacy in Food Studies Curriculum

- project - outlines the possibilities for incorporating agricultural literacy in the Saskatchewan Home Economics Curriculum. [HEEL 1]

Diane Parr (AB) - Teenage Athletes and Food Choices

-survey research - conducted a survey of teenage athletes in a sports academy to determine what factors influence their food choices. [HEEL 1]

Heidi Phillips (SASK) - *Infusing Sustainable Living in Home Economics Education: An Extended Literature Review*

*-* extended literature review – identified key concepts related to ecology and sustainable living and how they can be applied to home economics education. [HEEL 4.5]

Payne, Emily (BC) - *Undocumented Spaces: The Hidden Realities of A Novice Teacher*

-self study, narrative – uses her stories as a beginning teacher to explore teacher burnout and demoralization [HEEL 4.5]

Sharon Roach (Sask) - *Teacher Use of Blended Learning: A Narrative Inquiry*

- qualitative interpretive research - used interviews and focus groups to gather teachers’ stories of using blended learning. [HEEL 3]

Sara Rocio Raeesi-Gujani (ON) - *The Rhythm Of Reciprocity: An A/R/Tographic Gaze To Ecological Literacy In The Open*

- phenomenological/interpretative inquiry using a/r/tography - explores and elaborates the concept of reciprocity as essential to ecological literacy. [HEEL 2]

Barry Rourke (BC) - *Planting Seeds for a Garden: A Project Report of a Secondary School Food-Based Garden*

*-* project – describes how he created a school garden a mountain community in the interior of BC. [HEEL 3]

Cindy Sherstan (BC) - *Google This or Not? An Exploration of Google Classroom in Home Economics*

- teacher action research - a reflexive exploration of challenges in using Goggle Classroom**©** in a Home Economics classroom. [HEEL 3]

Rainess Simpson (Jamaica) - *Evidence of the 4Cs of 21st Century Learning in Jamaica’s NCTVET Home Economics Related Curricula*

- curriculum analysis – determined the extent of the 4Cs evident in NCTVET Home Economics related syllabi, and made recommendations to improve the implementation of the 4Cs within NCTVET Home Economics courses [HEEL 6]

Chrissy Smith (BC) *- More than Just Cooking: A Home Economics Educator’s Reflective Exploration of Food Literacy*

- autoethnography – reflexive exploration of three vignettes of practice for the meanings they hold for implementing food literacy in high school food courses [HEEL 4.5]

Dayle Thiessen (BC) - *Let’s Go Outside: Exploring the Ways in Which Students Use A Newly Re-Wilded School Ground To Understand and Experience Nature*

 - photo-voice, co-researching with students – reports on a year long project with elementary students to understand and care about the natural world, the “home” in home economics. [HEEL 5]

Jennifer Thys (Manitoba) - 1:1 Laptop Programs and Home Economics Education

- self study - discusses her response to an imposed school wide program. [HEEL 1]

Joseph Tong (BC) - Towards an authentic practice: A novice teacher’s transformative journey

- narrative - explores three stories of personal experiences and how they have influenced his values and beliefs about teaching and learning. [HEEL 1]

Shawna Torres (BC) - *Engaging In Home Economics Through Ecological Displays In A Library-Learning Commons*

 - teacher action research –documented using her home economics background to enhance student learning in a library teaching position. [HEEL 4]

Robyn Ummard (BC) - Exploring the Ethics of Clothing Consumption and the Implications for Home Economics Curriculum and Pedagogy: A Self Study

-reflexive account - argues that more sustainable, socially just, and ethical approaches to clothing and textiles start with an examination of teacher’s personal values [HEEL 2]

Karin Voogd (Yukon) -  Exploring Food Literacy in Whitehorse

- secondary analysis of existing data - Reviewed food literacy programs in her community to determine what was working and areas for improvement .[HEEL 2]

Jessica Williams (BC) - *Organized Chaos: Middle School Home Economics*

-project – describes the life of a middle school home economics teacher and developed a website of resource material for this setting. [HEEL 6]

Sarah Williams (BC/Nunavut) - Seeking Wellness Through a Culturally Relevant Curriculum: Improving Student Success in Aboriginal Communities

- narrative - explores three experiences teaching in culturally diverse settings for how they influenced her values and beliefs about teaching and learning. [HEEL 1]

Sheila Marie Williams (BC) - Food citizenship and home economics education: A conceptual analysis

- conceptual research - teases out the key aspect of food citizenship and the meaning for food studies programs. [HEEL 2]

Samantha Withenshaw (BC) - *A Proposal for teaching Food Studies 11 and Active Living 11 together*

- project – developed a rationale, course outline, resource materials for an integrated Physical Education and Home Economics course. [HEEL 3]

Kelli Wolfe-Enslow (Nova Scotia) - Educating Students to Become Socially Just Consumer Citizens: A Curriculum Analysis

- content analysis and critical discourse analysis - analyzed the textile curriculum document for evidence of creating socially just consumer citizens. [HEEL 1]

I-Chien Phoebe Wei (BC) - *Fostering Cooperation and Collaboration in the Food and Nutrition Classrooms: A Self-Study Action Research Project*

 - teacher action research – investigated ways such as cooperative learning to improve her teaching of Food Studies in the high school classroom. [HEEL 4]

Wotherspoon, Meagan (SK) - *Wayfaring: A Guiding Concept in Teaching, Learning, and Living*

- self study, narrative and a/r/tography - explored the concept of wayfaring as a guiding concept for curriculum and pedagogy. [HEEL 3]

Two HEEL students have transferred to MA programs and each completed a thesis:

Ayala Johnson (BC) - *Ideology in Home Economics Education: A Critical Discourse Analysis*

- a sophisticated version of critical discourse analysis reveals neo-capitalist and neo-liberal ideologies dominated the semiotic structuring of a 2007 curriculum document. [HEEL 1]

Melissa Bauer Edstrom (BC) - *Mindful Curriculum and Pedagogy In The Practice Of A Home Economics Educator*

- teacher action research – explores the use of non-meditative mindfulness to develop home economics curriculum and pedagogy that challenges students to think critically. [HEEL 2]