AN ABSTRACT OF THE THESIS OF


Title: Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

Abstract approved: ________________________________________________

Dr. Shawn Rowe

Abstract: Learning is lifelong, life-wide and life-deep, meaning it happens anywhere, at any time (Banks, et al., 2007). The implications of learning with intent, is where “free choice learning” began (Falk and Dierking, 2002; 2010). Families play a vital role in developing an integrated curriculum including: rural anthropology (epigenetics, tribalism), Geosciences (disaster preparedness, ecology, agroforestry), sociology (psychology of survival, adaptive capacity). These seemed like unrelated topics until I surveyed 25 individuals. I discovered both acute and chronic scenarios that led me to develop a concept I call “sustainable survival”. After speaking with 10 families using it’s forced choice questions (scalar 1-5) followed by open-ended questions (ethnographic interview methods), I created an Advocacy Response Scale based on their self-reported perceived knowledge, concerns and interests in survival, sustainability, additives in food/water and exposures in their environments. The scale describes five levels: community organizer, self-efficacy, complacency, denial, and overwhelm/apathy. Families self-reported level was 80% community organizer compared to actions based formative evaluation of 50%. The 65 participants of this rural community population of (N=174), represented 37% of the total population. Hands-on courses for disaster preparedness with multiple families are suggested to help develop resilience and adaptive capacity.
Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

by
Amber H. S. Winterbourne

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APPROVED:

__________________________________
Major Professor, representing Education

__________________________________
Director, of the Master of Arts in Interdisciplinary Studies Program

__________________________________
Dean of the Graduate School

I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

__________________________________
Amber H. S. Winterbourne, Author
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Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

Burton Mabe and Yverre Winterbourne fishing in Hillsville, VA

Photo Credit: John Winterbourne Aug 2014

Amber H.S. Winterbourne
Master of Arts in Interdisciplinary Studies (MAIS)
Education, Applied Anthropology, and Ocean-Earth-and Atmospheric Studies (Geosciences)
June 8, 2018
Chapter I: Introduction and Background

Learning is not something confined to formal schooling. It can occur everywhere, at any time and in almost any kind of social group or arrangement. While this has always been the case for human beings, it is only in recent years that learning researchers have begun to really grapple with learning as something that is lifelong, life-wide and life-deep (Banks, et al., 2007). Families are the first introduction most of us have to learning and the primary context for much of our early learning as well as much of the leisure-time, out-of-school learning that we do (Falk and Dierking, 2002). Because the learning that happens in families is characterized by a large amount of choice and control for learners, it is often referred to as free-choice learning (Falk and Dierking, 2002; 2010). While certain topics such as science or mathematics are most often covered and learned more fully in formal education settings, topics such as health, sustainability, resilience, disaster preparedness or family survival are almost always learned in informal contexts characterized by free-choice learning.

1.1 The importance of an interdisciplinary approach

The work reported in this master’s thesis represents part of my attempt to harness what we know about free-choice learning as well as targeted disciplinary knowledge in anthropology and geosciences to create a Family Sustainable Survival School (FSSS) (see Appendix C for more details) based on a rural community in Oregon (location undisclosed purposefully to protect volunteers’ identities). While this project was originally designed as a needs assessment (Diamond, et al., 2016) at the front-end of curriculum development for the Survival School program, the
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purpos shifted from curriculum development to scale, instrument and model development since adequate published models to describe initial findings could not be identified. In true grounded theory fashion (Glaser and Strauss, 1968; Auerbach and Silverstein, 2003), the research lead me to develop two concepts -- family sustainable survival and advocacy response.

The thesis itself has three components: 1) a short background section reviewing the definitions of survival, sustainability, disaster preparedness and community resilience; 2) the concept of “Sustainable Survival” which I identified through the process of surveying rural perspectives of survival and sustainability, and 3) a measurement method I designed, after reviewing the responses from the families interviewed, and observing their behaviors related to human development, I call this measurement method the Advocacy Response Scale (ARS).

1.2 Key Concepts

There are many definitions and ways of understanding the concepts used in this thesis. These terms are specifically relating to human systems. How people are dependent on the natural environment is a factor but is not what the definitions are necessarily relating to.

1.2.1 Survival

Survival is the continuation of life or existence. Without thrills or levels of health, survival just is being alive, still. Sometimes it is in comparison to others but in general it is: the act or fact of living. In contrast there are degrees of sustainability
or thresholds that exist. Survival is a momentary determination of yes “they” are alive or no “they” did not survive.

1.2.2 Sustainability

Sustainability is also a determination potential longevity and not necessarily the current condition. The missing key to a future survival is how sustainable one’s daily activities are. A recent analysis of ocean, earth and atmospheric systems is their resilience to natural disasters including infestations. Evolutionarily speaking, resilience can be the accumulation of mechanisms that enable individuals within a population to thrive. As that resilience is selected for across generations those with higher adaptive capacities increase the probability of that genetic content to be maintained in that species. The characteristics that define adaptability in terms of organisms are similar in terminology to what is described in this thesis. The ability to thrive is beyond survival, it is sustainability within our ever changing environmental conditions across generations of a family’s genetic code.

1.2.3 Disaster Preparedness

Disaster Preparedness is a way of preparing to survive which is also known as sustainability. Through preparations of bug-out-bags, as an example, in order to maximize the survival outcome.

Disaster preparedness is defined as being in compliance:

- (1) with preventive measures,
- (2) in a state of readiness,
- (3) can provide services after a disaster, and
(4) will sustain throughout demands.

(http://www.businessdictionary.com/definition/disaster-preparedness.html) accessed March 7, 2018

1.2.4 Sustainable Survival

Family “sustainable survival” is a concept I developed after analyzing the survey responses. The two definitions above, separately, do not take into account the daily mindfulness necessary for families to survive they must be properly prepared. That requires knowledge and experience in survival and sustainability scenarios. Families that are in a survival mode, where they live paycheck to paycheck, are less likely to be able to address the preparations necessary to be sustainable. When people make a conscious effort to change their intake from perceived “junk foods” to healthy simplistic ingredients, clarity and physical well-being make survival easier. The acute (survival) and chronic (sustainability) limitations make long-term functional survivability more about both definitions together.

Once sustainable survival is realized, resiliency develops and the family can concentrate on their adaptive capacity. This is not only a lifestyle shift but a shift in consciousness also. The psychology of survival is as important as what we consume or how physically fit we are. These concepts are explored in more depth in the discussion section of this thesis.

1.2.5 Free-choice Learning through Experience

When speaking with my advisor Dr. Rowe at Oregon State University about my concepts of sustainable survival and the advocacy response scale, he recommended I
review a dissertation by Carlos Andrés Ríos-Uribe (2009) called: Toward establishing
the validity of the transformative optimism construct measurement for tsunami
preparedness: a structural equation model for visitors of the Pacific Northwest coast.
This has been the closest and best description of this project I have found in the
literature. The complexities associated within individuals, families, learning,
protecting, sharing, community, tribalism and developing abilities were made easier
by understanding the concepts of optimism when related to natural disaster
preparations. Ríos-Uribe (2009) through his dissertation at Oregon State University
described it best by:

“...establishing a dialogue among educators, scientists, engineers, and the
community increases the likelihood of having more participants in tasks that
prepare the community. At the same time, people’s free-choice learning
decisions would be enhanced; such as the participation...if we understand
people’s way of thinking we can offer better alternatives to prepare for
potential natural hazards through community outreach programs, and
educational projects.
Chapter II: Methods

The research for this project consisted of a survey of the target population (part 1) and face-to-face, open-ended interviews of families in the same target community (part 2). The original intent was to use the survey and interview findings as needs assessment in curriculum development. Findings from the survey and interviews indicated the need for some model to understand and describe the willingness and ability of individuals and families to develop self-advocacy relative to sustainability. Thus, the analysis phase entailed the development of a scale and model of Family Advocacy Response that may be more generally useful for understanding community, family, and individual abilities to survive in the face of large-scale social, political, or environmental change.

2.1 Setting

The community selected for this first phase is a small, rural community in Western Oregon. Of which I am a resident. I believe that this was an important factor in both data collection and analysis as I have both an emic (insider) and etic (outsider) perspective (Maxwell, 2013) that allows me to 1) have a common ground and trust with participating families, and 2) be able to bring an academic perspective to interpretation of their lived experience. The particular community was chosen because it represents a similar rural lifestyle (home food production, the farmer’s markets, or other stores in the local community) to other Western Oregon communities. As a small community, residents may also have a potential to change policy, public perception, and potentially future exposures to a greater extent than is
possible in larger communities. Additionally, individuals with an interest in sharing their knowledge might have been involved in social activism already. According to the Oregon State Demographer's office, the community where the research was carried out consists of 174 residents. A total of 65 participants (about 37% of the total population and most likely a much higher percentage of all adult residents) completed either a survey (N=25) or interview (N=10 families made up of 40 individuals) as part of the research.

### 2.2 Data collection

#### 2.2.1 Survival and Sustainability Survey

The initial survey was provided in Nov of 2016 as part of an exhibit housed at the public library of the target community. I created a museum like display for the public to view, (see Figure 2.1), and the survey was posted next to the exhibit so that people who visited could voluntarily participate. The survey consisted of a list of questions and ranked responses (Appendix A) in terms of interest or experience around particular topics.
Figure 2.1- Survival and Sustainability FCL Exhibit for the survey used to identify topics of interest.

The survey also asked open ended questions to discover other concerns or interests relating to survival or sustainability. The series of open-ended questions identified particular topics of interest. By the end of two weeks the display was removed from the public library and 25 completed survey responses were collected and analyzed. The survey was designed to document participants’ perceived knowledge of survival issues, their areas of concern related to personal and community survival, as well as
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their levels of interest in those topics or others related to survival and potential survival school education. In addition, open-ended questions allowed participants to list other areas of concern, knowledge, or interest: The perceived hazards of additives, chemical exposures, and survival phycology were areas that were not included in the original survey, but which were added by participants as factors they saw impacting potential survival.

2.2.2 Family Interviews

After completing the survey analysis in November of 2016, I developed 15 questions from the original survival surveys in March of 2017. The intention for continuing with focus questions was to determine how pervasive the perceived knowledge, concern, and interest in change toward the additives and exposures mentioned in the initial survey really were among families in the community. I conducted open-ended interviews with 10 families living within 1 mile of the local charter school. I walked door to door asking if the families within each residence would participate in an interview for a course I was taking at Oregon State University. Everyone I made contact with volunteered to be a part of the research. The setting was informal, in their homes or in their yards, open and conversational. I asked the questions in a non-leading way so that responses promoted conversations. Through the sharing of their memories, I felt a deeper connection to the people in my community.

None of the individuals selected for interviews had filled out the survey. Participants ranged broadly in age, occupation, backgrounds, and education level as well as time spent living in the target community; that is, they represented a wide
cross-section of the community. In this sense, while this study does not attempt to statistically generalize from the target population here to rural communities at large, I do believe that the participants represent the general range of experiences, values and beliefs typical of rural communities in Western Oregon at least.

2.3 Data Analysis

Survey responses were collated for description at both an aggregate and individual level. Open-ended answers (as well as interview answers) were analyzed qualitatively developing themes based on repeated ideas following procedures outlined in Auerbach and Silverstein (2003). As part of interviews, I spoke with many people at the same time while observing the interactions between family members. Transcripts of interviews are included in Appendix B.

Having collected, collated and categorized the open-ended responses to the interview questions, I used the family’s self-reported weighting from 1 being least and 5 being most to weight the intensity of the comments and what was included as descriptors in the responses. I then placed those metrics into a table for the three areas: perceived knowledge, concern, and interest. Results are reported below in Section 3.4. I asked 5 questions in each area, the total possible self-reported weight would be 25 in three categories for a total of 75 possible if 5 was the weight of all 15 questions. I divided the sum of the response values and divided it by 75 for a percent of 100.
2.4 Limitations of study

2.4.1 Selection bias and population of study

The target area may be called a small enclave when considering size but the features that make it characteristic of a rural population are:

- about half the residents travel 30-45 minutes to work
- other residents work for the local charter school, the store, the restaurant, or for the logging industry
- cattle raising and organic vegetable farming are significant sources of revenue.

This is normal for most rural communities in Oregon. As a result, the descriptions of levels relating to the Advocacy Response Scale are legitimate for comparisons to other surveys, interviews, or classroom student responses. The resulting views of these 25 surveys and ten family interviews, give others a general insight into rural populations, at least in the Pacific Northwest.

2.4.2 Purposive and Convenience Sample

The goal of a purposive sample was to determine what topics were interesting to rural individuals relating to sustainability and or survival. The convenience sample characteristics relate to the location being where I live and the families living within walking distance from the library. Even though this is a rural community all the families interviewed lived in the area that has a higher population, within a half mile from each other. Everyone knew each other and so many of the concerns were similar since they have read about it in the local paper or they have discussed them
prior to being asked in the survey (different groups of individuals volunteered for those questions).

Families bestowed upon me their voluntary participation primarily due to their beliefs that I was trustworthy. Respect I have shown them and this community over 5 years has had an important part of this data collection process (an applied anthropology outcome). I have not always shared their opinions or beliefs, but their opinion of me was that I was not a stranger or acted in an immoral fashion. The families would not have allowed me in their home let alone spoken with me about perceptions of harm or weakness, opinions about our government or industries, and their personal stories of failing or recovering health.

Although emic and etic perspectives are sometimes regarded as inherently in conflict and one can be preferred to the exclusion of the other, the complementarity of emic and etic approaches to anthropological research has been widely recognized. This sample collection method required that I be able to request passage into the emic perspective of the community while maintaining the visualization of the intention for the study; etic perspective. As the researcher I am the instrument for obtaining an outsiders reality of what they perceive as important experiences in their lives. Through the comfort of these participants I was able to hear their stories which helped me better understand why they sometimes feel unheard, or misunderstood (especially in the recent presidential elections, the results of which took most urbanites by surprise). The important part of relationships is that they must be real! It was also important that I use responses to evaluate, review and examine behaviors across years of interpersonal experiences.
2.4.3 Generalizability and representativeness

While the goal of this qualitative study was not statistical generalizability, I believe that the Advocacy Response Scale that I developed may be generalizable to a large number of settings and topic areas. The 15 questions are not and were not intended to be for any population but the one that I surveyed, however it is my hope others may be able to develop similar surveys building on my findings here.
Chapter III: Results

As stated in the methods, the results are in two parts: the initial survey and the family interviews. The results of the initial surveys provided the guiding questions for the family interviews. From the interviews with 10 families, I developed the concept of sustainable survival. While reviewing the comments I found very little in the literature to help evaluate and understand what the common viewpoints meant. After grouping the comments in like terms and thinking about the root causes for those comments, I developed the ARS. This is described in more detail in Section 3.5 below.

3.1 Survey Results

The survey form used is found in Appendix A but the completed forms are not displayed due to names and handwriting being easily identifiable. I do not wish to compromise the privacy and confidence of those surveyed. Below are the combined interests of the participants.

3.1.1 Free-choice Learning

I began the survey research to determine areas of interest for the courses that would be provided at the school. The results provided insight into topics I had not considered as vital parts of the future curriculum. I then did family interviews which through extensive analysis lead me into a realm I have called Sustainable Survival. Rural communities are not usually known for their strong activism or self-authorship. During lengthy discussions on these topic though a pattern of knowledge, concern, and interests diverted my focus from curriculum development into finding a concept
that could describe their drive for community preservation. Although the literature described the opposite, a lower level of motivation of rural citizenship, I believe the enthusiasm stems from the topics of survival and sustainability. I developed the ARS to help me gauge the level of actions I observed over 5 years and how that related to their perceptions of interest, awareness and motivation to act.

When people know more about science they care about it. If political science people want to know about rural beliefs and politicians they will vote for by organizing community activities about things that they care about. They'll appear to be hard to organize if you make the point about social justice versus the human right to bear arms. Friere would say: if you get at what they actually care about, things look different (pedagogies of hope and the oppressed) rural communities act like activists. I discuss in the results how this concept developed the ARS – should be better described in the thesis, so the reader can follow. And this shift is typical in free-choice learning.

3.2 Families Interviewed

The family interviews were based on responses to surveys collected from the local library. There were 25 individual forms completed in the fall of 2016. They did written descriptions of survival experiences they had, their educational interests relating to survival, and how they identify threats.

Food additives in processed food products were a recurring concern. The respondents’ opinion of their knowledge was often higher than their actual knowledge. However, for this qualitative analysis, I was not surveying their knowledge, but rather their opinion of how informed they are. I reviewed these
perceptions through the scientific lens of a nutritional anthropologist by considering if their lifestyles changed, across 10 years, and if so, how and why. The open-ended questions I developed allowed me to imagine myself in their shoes.

Before showing the actual results from the interviews, each family is described briefly (no real names are used) to compare the advocacy response scale of each. Full interview transcripts are in Appendix B.

**Joe’s Family**- Stay at home mom and dad that keep to themselves and are not active in the community. Mom is a disabled veteran who served in Iraq and now receives funding from the Veterans Administration. Dad is turning their single family home into a Farm Stay/bed and breakfast. They have two young children, and a small farm with chickens, goats, rabbits and pets. They grow much of their own food and preserve large quantities for use throughout the winter. They are newcomers (within the past 5 years) and went through a process similar to being vetted. They survived and are developing a network of contacts with the old timers of the community.

**Michelle’s Family**- Working mom who has three boys. Father lives with them but not in a “marriage life” relationship anymore. They grew up in the community and were considered to be children that made bad choices. They recently moved back and are making a fresh start. They don’t want the kids to go to the local school due to community gossip. One method the mother uses to reduce conflict is to not wave at anyone so that she doesn’t have to hear about it later. They work out of town and are cleaning the house up into which they are moving. It has long been a rental for drug dealers and meth addicts.
Crystal’s Family- Mother works at the school and father travels for work outside the community. They have three children and have integrated as part of the founding families of the community. They are not usually welcoming to newcomers. They are having marriage difficulties and are considering moving out of the community that they have been ingrained in all their lives.

Angel’s Family- Relatively new family in the community, moved here in the past 10 years. Highly respected and entrusted with many children in the community. Involved in school activities, coaching, and driving the school bus. The father works out of town but volunteers in the fire department. Three young children at home with a well-kept yard.

Dana’s Family- Old timer in the town with her husband. Her family includes grandchildren that came back to help with their house and health related issues. Welcoming of newcomers, very religious, with a giving personality.

Brandon’s Family- Newcomer within past 5 years, grandmother and grandfather, father and mother, and son live together in a doublewide. The grandmother worked at the school and the grandfather is retired with a pension, father is disabled from welding and son works long hours on a farm. Devoted especially to family and friends, human rights, and privacy.

Brandon’s family more than any other has their financial foundation in industrial jobs. Until recently, they have lived for decades in extremely rural settings. This family has a routine, they get up at 4 am and go to sleep at 8 pm. They don’t want anything to change.
**Andre’s Family**- Father works at the school. Mother just lost her job. Their son is young and has disabilities. Health related illnesses and surgeries are a result of poor diet and lack of exercise. New to the community yet part of an extended family that moved in years ago. As part of this family, they have an independent network of social support, their moral equity is perhaps lower in the eyes of the community but exchangeable within their own developed framework.

**Yaya’s Family**- Husband and wife are part of the community for 40+ years and chosen to live out of doors, (not homeless), and are rarely seen. The wife makes crafts for the local Mercantile and recently (past 4 years) started gardening at the library community garden. The husband builds trail systems for food harvesting and to maintain independent mobility throughout the landscape. They are 74 and 88 years of age respectively and are still surviving primarily independent of common social systems. They are well educated (she obtained the highest Graduate Entrance Exam (GRE) score in her class) and considered extremely wise but also elusive. I was fortunate to have had the opportunity to learn as much as I did from them.

**Brian’s Family**- Community advocate for many of the educational classes provided at the local library. Husband and wife are long-standing members of the community and support development of programs to strengthen rural families. The husband organized HAM radio and survival classes at the library. He is 71 and still mountain bikes. They talk about personal experiences which they share with newcomer and old timer alike.

**Mara’s Family**- A rare family that works very hard on their land, has long standing family in town, and is open to newcomers. Mother works at the library, has
volunteered for over a decade at the emergency response and fire department, and has grown children involved in this community.

### 3.3 Interview Responses Summarized

As mentioned above, the family and individual’s names have been changed to maintain anonymity. General demographic information was collected (age, family size, income) yet not reported in these results. Answers were recorded by the researcher with pen and paper, and after the interview were reviewed and grouped according to repeating themes. Each theme was then “captured” with a representative quotation from one of the families. The primary questions used during the interviews and the number of responses grouped into representative quotations are listed below. Because families’ answers to questions could be coded into two or more categories of responses, in the cases below, some response totals exceed 10 (the number of interviews).

**Table 3.3- Interview Responses: Ten Families, 15 questions**

**Intro:** What types of food activities does your family participant in?

Gardening, eating local, hunting, fishing, food preservation, and gathering/harvesting. 10 or 10 responses

Note: The story seems the same that all the families interviewed have active participation in some portion of their food supply.

**Intro:** Do you consider those survival and or sustainability activities?

10 of 10 respondents stated that a combination of both must be engaged in to survive.

Note: Story of the families is that the two activities are not distinct but rather that all sustainability activities enable them to be better survivalists. This is
where the concept of sustainable survival along with the initial survey responses, came from.

Intro: How often are they included in your routines?

Continuously. We include these activities in nearly everything we do. 1 of 10 responses

Daily. 6 of 10 responses

I don’t know, pretty often. 3 of 10 responses

Q1. How much do you know about food additives?

Food additives make things last longer, but they are bad for us. The packaging of many foods have preservatives in them. 6 of 10 responses

Not very much. 4 of 10 responses

Q2. How much do you know about products that may have chemicals on or in them?

There are things present which are not always in the ingredients list. 5 of 10 responses

Some. However, it seems as though they change the names from time to time to mislead the consumer. It makes it hard to know if it’s new or the same thing. 3 of 10 responses

Well Teflon, plastic, pesticides, and many others can be ingested and are harmful. 6 of 10 responses

Q3. How much do you know about locations that are higher risks of chemical exposure?

There are chemicals in the roadways when they spray herbicides/ I have no spray signs/ I used to pick blackberries off the roadsides but not now. 7 of 10 responses

The chemical cabinet at the school or at my home. 1 of 10 responses

I sprayed the pesticide Malathion for years, and now I have blood cancer. The bugs bothered me so much but now I realize they weren’t even eating my garden. 1 of 10 responses
Q4. How much do you know about potential health impacts?

- Aspartame and MSG cause migraine headaches. 8 of 10 responses
- We are not concerned about additives. 1 of 10 responses
- I have a hard time getting dinner ready, let alone knowing what health impacts it has. 1 of 10 responses
- My husband experienced manic-like mood swings for a period of time after he stopped consuming aspartame containing sodas, but now he doesn’t have shakes from the high fructose corn syrup. 1 of 10 responses

Do you feel comfortable sharing examples of how foods have influenced your life?

Yes that’s why I agreed to talk and share what I know so others don’t have to experience it.

Q5. How much do you know about industry and/or government involvement?

- They don’t have any involvement but that’s what we are paying the FDA for but I don’t know what they are doing with the tax money. 8 of 10 responses
- I don’t trust they are doing anything about our food safety, that’s our job to be sure we feed our families the right food. 2 of 10 responses
- Neither can be trusted. 6 of 10 responses

Q6. How concerned are you about food additives?

- I know and am always checking labels and looking things up. 7 of 10 responses
- I am not worried about that right now. 1 of 10 responses
- If you had done the drugs I’ve tried, you wouldn’t worry about any of that stuff. 1 of 10 responses
- Do you know how many chemicals are on money…they are covered in it, I am not worried in comparison. 1 of 10 responses

Q7. How concerned are you about food effects on your reproductive health?
I am concerned/ I am concerned for my children/ I am concerned for my family. 10 of 10 responses

Q8. How concerned are you about current or future offspring’s consumption of preservatives, additives or other artificial flavors?

I am concerned/ I am concerned for my children/ I am concerned for my family. 10 of 10 responses

Epigenetically speaking, three generations can be affected by BPA’s which are commonly found on register receipts, plastics, etc. This can cause harm to woman, woman’s’ eggs, and their offspring’s eggs. 1 of 10 responses

Q9. How concerned are you about fluoride?

Highly concerned about fluoride in public water and dental products. We don’t use any and checked that the town doesn’t add it to the water supply here. 9 of 10 responses

We use fluoride at the school, we use it at home, and it strengthens our teeth from cavities. 1 of 10 responses

Q10. How concerned are you about weight gain?

For me, my wife our son, quite a bit. 1 of 10 responses

I don’t have that problem. I need to gain weight but my wife is overweight. 1 of 10 responses

I didn’t know that was a food additive problem, I believe that is concerning to most people. 6 of 10 responses

Not concerned. 1 of 10 responses

Q11. How interested you are in learning about preventive measures?

We are very interested. 6 of 10 responses

Not interested 4 of 10 responses

Q12. How interested you are in learning more about sources of chemical in food?

We are very interested 7 of 10 responses

Not interested 3 of 10 responses
Q13. How interested you are in learning about labeling improvements?

We are very interested 10 of 10 responses

Q14. How interested you are in learning about forms of negligence and potential industrial or governmental responsibility?

We are very interested 8 of 10 responses

Not interested 2 of 10 responses

Q15. How interested you are in learning more about potential health impacts?

Very interested. 10 of 10 responses

Conclusion: Who usually shops for the family?

Mother. 4 of 10 responses

Him or me/Me or my wife…whoever happens to be in town. 6 of 10 responses

Conclusion: Where do you usually do grocery shopping?

Winco. 4 of 10 responses

Safeway. 2 of 10

Merc as much as possible, to keep them around. 3 of 10 responses

Gleaners/Food Bank. 3 of 10 responses

Food forest. 1 of 10 responses

Conclusion: Why do you prefer that location?

On my way home. 2 of 10 responses

Less expensive. 4 of 10 responses

Local. 4 of 10 responses

Conclusion: What do you know about organic foods?

They are safer for our family because they don’t have pesticides, herbicides or other additives that could cause health impacts later. 9 of 10 responses
They cost more, unless they come out of your garden. 10 of 10 responses

**Conclusion:** Do you eat them?

Yes when we can afford them. 8 of 10 responses

No. I just forget to look in that section for them. It wouldn’t cause a financial burden just habits are hard to change. 1 of 10 responses

No I just use a spray that works well at washing them off. 1 of 10 responses

**Conclusion:** What food related behaviors have you changed over the past 10 years?

We haven’t changed much. 6 of 10 responses

Everything we eat has changed after knowing what and how it is being manufactured. 4 of 10 responses

**Conclusion:** Do you feel it is a personal responsibility to prevent exposures “buyer beware”?

It is the responsibility of food manufacturers and the FDA, since we pay them to ensure our food is safe to consume. 8 of 10 responses

I don’t trust they will ever produce food that is safe for my family. It is my responsibility to check what they are eating. 1 of 10 responses

We don’t purchase things from the store, so it’s a buyer beware way of looking at the food but a lack of responsibility on their part to do the right thing. 1 of 10 responses
3.4 Results of Interviews

In the perceived knowledge responses, families seemed confident they knew an average amount, at least. The highest perceived knowledge was about food additives. The families tended to enumerate examples of their knowledge and then look to me for confirmation of the score they gave themselves. This was something I tried to not encourage, but I was impressed by many of the comments the families made.
Table 3.4a- Perceived Knowledge Data

<table>
<thead>
<tr>
<th>Questions</th>
<th>1 Food Additives</th>
<th>2 Products</th>
<th>3 Locations</th>
<th>4 Potential Health Impacts</th>
<th>5 Industry &amp; Government</th>
<th>Total of Responses</th>
<th>Advocacy Response Total</th>
<th>Comparison of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>20</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>Michelle</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>16</td>
<td>16%</td>
<td>64%</td>
</tr>
<tr>
<td>Crystal</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>15</td>
<td>15%</td>
<td>60%</td>
</tr>
<tr>
<td>Angel</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td>15%</td>
<td>60%</td>
</tr>
<tr>
<td>Dana</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>22</td>
<td>22%</td>
<td>88%</td>
</tr>
<tr>
<td>Brandon</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>15</td>
<td>15%</td>
<td>60%</td>
</tr>
<tr>
<td>Andre</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>23</td>
<td>23%</td>
<td>92%</td>
</tr>
<tr>
<td>Yayo</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>23</td>
<td>23%</td>
<td>92%</td>
</tr>
<tr>
<td>Brian</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>25%</td>
<td>100%</td>
</tr>
<tr>
<td>Mara</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>10</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>Community Total</td>
<td>23%</td>
<td>20%</td>
<td>17%</td>
<td>21%</td>
<td>20%</td>
<td>194</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.4a- Perceived Knowledge
(5 very knowledgeable - 1 knows very little)
Families were self-reporting higher scores for their concern than they did for their perceived knowledge. Combined community responses went from 194 (see Figure and Table 3.4a above) total self-reported points for perceived knowledge to 216 (see Figure and Table 3.4b below) total for concern. Even though the families didn’t feel like they knew very much they did voice their concerns with an overarching feeling of distrust for manufactures and government agencies. When people don’t feel safe they begin to find alternative ways that are outside of social structures. In rural communities these methods tend to rely on more traditional solutions like gardening and gleaning.
Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

Table 3.4b- Concern Data

<table>
<thead>
<tr>
<th>Topics Questions</th>
<th>Family</th>
<th>Concern</th>
<th>Total of Responses</th>
<th>Advocacy Response Total</th>
<th>Comparison of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Family</td>
<td>Food Additives</td>
<td>Reproductive Health</td>
<td>Offspring</td>
<td>Fluoride</td>
</tr>
<tr>
<td>1. Joe</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2. Michelle</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3. Crystal</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4. Angel</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5. Dana</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6. Brandon</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Andre</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Yaya</td>
<td>8</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>9. Brian</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>10. Mara</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Community Total</td>
<td></td>
<td>19%</td>
<td>19%</td>
<td>19%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Figure 3.4b- Concern Chart
(5 very concerned - 1 not concerned at all)
The final part of the interviews asked families about their interest in learning or taking action. There was overwhelming support for classes and information. Those who were unconcerned even voiced an interest in learning more. This was shocking based on the shift that almost every family responded to the questions with yes, very interested, and motivated to be involved in additional activities related to food additives. The overall community responses increased overall based on families interest. The total points for community interest were 222 (see Figure and Table 3.4c below).
Table 3.4c- Interest Data

<table>
<thead>
<tr>
<th>Family</th>
<th>Preventive Measures</th>
<th>Learning More</th>
<th>Labeling</th>
<th>Negligence</th>
<th>Health Impacts</th>
<th>Total of Responses</th>
<th>Advocacy Response Total</th>
<th>Comparison of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>25%</td>
<td>100%</td>
</tr>
<tr>
<td>Michelle</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>25%</td>
<td>100%</td>
</tr>
<tr>
<td>Crystal</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>12</td>
<td>16%</td>
<td>64%</td>
</tr>
<tr>
<td>Angela</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>16</td>
<td>23%</td>
<td>92%</td>
</tr>
<tr>
<td>Dana</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>25%</td>
<td>100%</td>
</tr>
<tr>
<td>Brandon</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<td>8</td>
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<td>32%</td>
</tr>
<tr>
<td>Andre</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>25%</td>
<td>100%</td>
</tr>
<tr>
<td>Yaya</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>25%</td>
<td>100%</td>
</tr>
<tr>
<td>Brian</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>25%</td>
<td>100%</td>
</tr>
<tr>
<td>Mara</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>25%</td>
<td>100%</td>
</tr>
<tr>
<td>Community Total</td>
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<td>19%</td>
<td>20%</td>
<td>20%</td>
<td>21%</td>
<td>222</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.4c- Interest Chart
(5 very interested - 1 no interest)
I gained from these in-depth conversations, an overall feeling of distrust for the government and our quality of foods available in grocery stores. Of the 10 families 8 were concerned about their foods and 9 wanted to know about what was contained in them. Eight families believed the government is responsible. Of the other two, one believed it was her family's responsibility to protect themselves and the other trusted the government implicitly because in their own words, “I am too overwhelmed to make dinner. I am not going to worry about what is in the food I buy. Since I am overwhelmed, and I can't cook my own family dinner, after work, I am not going to learn about new problems.”

3.5 Advocacy Response Scale

The process that occurred where the focus of the paper moved from a focus of curriculum development to scalar development in research happened when the ethnographic responses were unique to any other method of evaluation. I looked in the literature for scales that described the behaviors and actions of these families not just their self-reported knowledge, concern and interest. I used the Formative evaluation to shape my final project, the ARS. This scale is a direct positive learning outcome for the FCL survey and evaluation results. This rural community is the basis for the development of the ARS but is an explicit outcome of research I did in FCL courses. The concern/worry piece and the ARS resonates with the literature on climate change beliefs, values, concerns, and knowledge.

I asked families to self-scale or self-report their knowledge concern and interest between one and five. As an example I asked the families: “From 1 being least and 5 being most, how concerned are you about food additives?” This is of the
15 self-reporting answers to 15 questions the minimum possible points is 15 and the maximum is 75 possible “advocacy points”. I then took their totaled survey response score and divided it by 75 to create an advocacy response score based on 100. I created an Advocacy Response Scale (see Table 3.5a, Figure 3.5 and Table 3.5b) based on 20 point intervals with five categories, totaling 100. Disconfirming evidence is described in Section 4.1 where the results might be different than my observations.

### Table 3.5a- Advocacy Response Scale

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Overwhelm/Apathy (I don’t have the energy, time, or money)</td>
<td>0-2 least (&gt; 20)</td>
</tr>
<tr>
<td>2.</td>
<td>Denial (Naivety. The government says it is safe, therefore it is)</td>
<td>2-4 low (21-40)</td>
</tr>
<tr>
<td>3.</td>
<td>Complacency (Everything is just the way I like it)</td>
<td>4-6 avg (41-60)</td>
</tr>
<tr>
<td>4.</td>
<td>Self-efficacy (I can take care of myself and my family)</td>
<td>6-8 high (61-80)</td>
</tr>
<tr>
<td>5.</td>
<td>Community organizer (Innovation for changes in community)</td>
<td>8-10 top (81-100)</td>
</tr>
</tbody>
</table>

The interview responses and observed human behaviors where I developed the ARS five levels (see above Table 3.5a and below in Figure 3.5) of “qualitative” concepts like denial, complacency, etc. and definitions describing them, were then converted into “quantitative scores” on an ordinal scale of increments for (e.g., 0-20 for overwhelm/apathy).

I think the risks of converting from descriptive terms (e.g., from the lower level of Denial or upper level of Overwhelm/apathy) to numeric terminology (a quantitative score where one point is the difference (20 or 21)) is that when
individuals are on the cusp, the researcher may be more likely to put them in the wrong category/level of human behavior. Rather than have them described as both, (overwhelm/apathy and denial). A number is more decisive yet can be more error prone if the participants are put in the wrong category. If this is based on the researchers experience with the participants’ capabilities, then the selection would be based on evidence and the researcher's knowledge. The justification for this conversion would be considered an acceptable outcome. The risk is if participants’ scores are based solely on mathematics, not human behavior.

I think the benefits of having a scale in quantitative form, is that by making qualitative responses representative, the researcher is allowed to determine the percent of the population within that community that is comparable to other communities’ capabilities. This might allow for support systems to be sent to the communities of lower advocacy (i.e., greater numbers functioning in survival mode, vs. sustainable survival mode). The communities already functioning in an adaptive capacity, with an optimistic mindset, would not require as much outside support.

This also might be a method of converting student capabilities into a grading format (e.g., community organizer (qualitative) 81-100 (quantitative) would be an “A+” for exceeding expectations (benefit of the conversion) to act beyond self-efficacy for the benefit of others through socio/cultural advocacy and as an innovator toward increased humanitarian aid (see definition below)). On the other end of the quantitative spectrum a student or participant who has failed to act beyond survival mode would be graded as an “F” overwhelm/apathy, and given guidance or support to move them up the scale. The initial support is an effort to raise them from survival
Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

mode to being able to thrive without support. Once they can thrive, then eventually they will be able to help others.

Figure 3.5- Depiction of the Advocacy Response Scale

I used this weighting to develop a response characteristic scale for the 10 families and extrapolated that to the larger population of the community. I assumed an average family size of 4 people each for a total of 40 respondents plus the 25 survey responses is 65 total participants. Which person, within each household, is the survey respondent – and how might this influence results?

I divided 65 by the number of total individuals The XXX Census Designated Place had a population of 174 as of July 1, 2017 so (N=174) reported for the unincorporated township and 1,280 for the entire surrounding community. I made (XXX) where the town was named for privacy reasons and referenced the main page below and in the references for the same reason (https://oregon.hometownlocator.com) accessed June 10, 2018.

That is 37% of this small unincorporated community and 5% of the entire zip code. I have identified it in this thesis as a rural community. This is one of many ethnographic surveys of rural anthropology which look at new concepts to understand
and record human evolution. I hope this technique is useful and adds to the discourse existing in this developing field.

Table 3.5b- Advocacy Response Scale: Results

<table>
<thead>
<tr>
<th>Family Interviews</th>
<th>Advocacy Response Totals (sum responses/75 = % of 100)</th>
<th>Advocacy Response Scale: Self-Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>9- Brian</td>
<td>15 (5s) = 75/75 = 100</td>
<td>Community Organizer</td>
</tr>
<tr>
<td>8-Yaya</td>
<td>2 (4s) 13 (5s) = 73/75 = 97</td>
<td>Community Organizer</td>
</tr>
<tr>
<td>5- Dana</td>
<td>1 (3) 1 (4) 13 (5) = 72/75 = 96</td>
<td>Community Organizer</td>
</tr>
<tr>
<td>4- Angel</td>
<td>1 (3) 1 (4) 13 (5) = 72/75 = 96</td>
<td>Community Organizer</td>
</tr>
<tr>
<td>7- Andre</td>
<td>4 (4s) 11 (5) = 71/75 = 95</td>
<td>Community Organizer</td>
</tr>
<tr>
<td>1- Joe</td>
<td>2 (3s) 1 (4) 12 (5) = 70/75 = 93</td>
<td>Community Organizer</td>
</tr>
<tr>
<td>10- Mara</td>
<td>2 (3) 2 (4s) 11 (5s) = 69/75 = 92</td>
<td>Community Organizer</td>
</tr>
<tr>
<td>2- Michelle</td>
<td>3 (2s) and 12 (5s) = 66/75 = 88</td>
<td>Community Organizer</td>
</tr>
<tr>
<td>3- Crystal</td>
<td>3 (1s) 3 (2s) 5 (3s) 3 (4s) 1 (5) = 41/75 = 55</td>
<td>Complacency</td>
</tr>
<tr>
<td>6- Brandon</td>
<td>5 (1s) 3 (2s) 4 (3s) 1 (4) 2 (5) = 37/75 = 49</td>
<td>Complacency</td>
</tr>
</tbody>
</table>

This paragraph goes into further detail of the ARS categories. I developed these descriptions based on what I experienced in this rural community over 5 years of activism, leadership (prior U.S. Army Captain), and advocacy in a non-profit organization for low income families. I have gotten to know these families as friends, neighbors, and community members. I wanted to develop a self-reporting capability as well to determine if my perceptions of them through an anthropological and
ecological lens would be the same as theirs. This section defines the categories.

Section 4.1 “Disconfirming Evidence” describes my own perceptions and why they may differ from the families’ perceptions of their knowledge, concern and interests.

3.5.1 Community Organizer

Bobo (2001) describes a community organizer (C.O.) as someone who drives social change by promoting conflicting viewpoints to vocalize their disapproval with the current power situation in order to stand up for the powerless. The effect of such actions is change to the mainstream social structures for the benefit of the whole. The intention of these actions is to create spatial and temporal shifts in leadership consciousness which have an effect on key decisions which address the needs of the powerless. Not to be confused with social justice demonstration, C.O.’s act for justice for all equally but not based on social constructs that provide preferential treatment to protected groups. Rather, their goal is to guarantee the protection of every person’s inalienable rights which are spelled out in the US Constitution. C.O.’s foster growth and work with new local leaders to facilitate coalitions and assist in the development of campaigns.

3.5.2 Self-efficacy

Like a mother bear who takes care of her own, these families function primarily to protect their own capabilities and needs. They have a large circle of friends who are also responsible for their actions. These are law abiding citizens may feel disgruntled about issues, but rarely are able to take action for the powerless. They may be religious, but if not they still maintain moral behavior and capital.
Perceived as wonderful people in small communities who take care of their lawns, homes, and have good children at the public school. Not everyone needs to be an activist for change. These individuals are the type of people who take care of your kids after school or help put out a fire because they volunteer at the fire department. They are regarded highly in the community and put forth the effort necessary to take care of themselves in the majority of situations.

3.5.3 Complacency

Merriam-Webster defines complacency as: “Self-satisfaction especially when accompanied by unawareness of actual dangers or deficiencies.” Things are going along just the way the family likes it. Life might not be great, but they know they can deal with it. The difficulties of the daily grind and rat race are just a fact of life, and change is not seen as an option. These hard-working people and families typically have factory-type jobs most of their careers.. They generally don’t complain or cause problems. They may drink too much in the eyes of society, but they are dependable and they might even purchase their own home someday. They know about the problems that exist in the world but don’t try to solve them. However, they have strong defenses if those problems arrive at their door. They are capable of action if pushed into confrontation, but will also appear a bit scary if they get annoyed. These are loyal friends who would take a life to save yours without hesitation. Mainly, though, they’d rather just watch TV.
3.5.4 Denial

Everything is perfect! Everyone is equal. The Earth is lush and bountiful. Our government and industry care about us and provide us what we need in a manner that is ethically responsible. Nothing could be wrong because if it was their whole world would come crashing down. They likely working a regular 9 to 5 middle class job and see the same faces everyday.

3.5.5 Overwhelm/Apathy

Nothing matters. They don’t know where they want to go or how to get there. Just the basic actions of work and home are wearing them down. Life seems difficult to continue with no sign of reprieve. Performing above Maslow’s Hierarchy of Needs level one perhaps two is difficult to contemplate. The choices they make are based on creating ease rather than improving their ability to think critically. New information is disregarded due to their lack of focus. This may be due to stress, toxins, lack of nutrients, insomnia or unresolved trauma.

3.5.6 ARSs Measurement of Human Development

In order to quantify and measure the results from the data collected, I developed the Advocacy Response Scale. While it is used here in a very narrow context, it could have a much broader application. Consider that each level of the scale can be related to a stage in human development. Young children are generally not capable of understanding cause and effect, much less accepting responsibility for the goings on in their environment. Related to the scale, they are at the lowest level, Apathy. By the time a child becomes a teenager, they are generally capable of
controlling their environment, but often refuse to. Related to the scale, they are in
Denial. Some people never advance much beyond this level. As a person enters their
20’s and moves into the world of work, bills, family, etc. they develop the ability to
get by. They might not have a lot, but they are keeping their head above water, are
excited about life, and generally improve their lot day by day. As they get
comfortable with their existence, it is common to slip back into Complacency. This is
the level that many people occupy. They generally have their bills paid, with perhaps
a little extra in savings. They have a decent job and might even have a 401K. As a
person further matures and begins looking forward they might advance into Self-
efficacy where they are making significant gains financially. They are set up for
retirement with investments; a passive income and the kids have grown up and moved
on. A lot of people stop here, but some take their new-found free time and reach out
to their communities and begin working to lift members of their community up. This
development into a Community Organizer is part of a natural instinct some have to
help others. This is a “higher calling” mentality which desired by many, but only
attainable by a few.

Notice that much of this description is related to finances. This is an easy area
to quantify. However the scale could be used to describe the physical, spiritual,
education, and even the political realms.

3.5.7 Similarities and Differences of ARS to Grounded Theory

John Stuart Mills' (1843) started it all with the publication, *A system of logic: Ratiocinative and Inductive* that described a method of differences, essentially the use
of (natural) experimental design. Similarly, cases that have the same outcome are
examined to see which conditions they all have in common, thereby revealing necessary causes. This is how the Advocacy Response Scale is similar to grounded theory, because by grouping characteristics of the families together through responses and observations, the definitions of those nuances became more obvious.

The grounded theory approach (Glaser and Strauss (1967) *The Discovery of Grounded Theory*, and Strauss and Corbin (1990) *Basics of Qualitative Research*) consists of a set of steps whose careful execution is thought to "guarantee" a good theory as the outcome. The quality of a theory can be evaluated by the process by which it is constructed.

This is in contrast to the scientific perspective of how you generate a theory, (whether through dreams, analogies or dumb luck) is irrelevant, the quality of a theory is determined by its ability to explain new data. For the ARS, this will be determined through the use of this concept by researchers, and the results obtained.

The ARS was developed from data collected and my experience within this community where I have gotten to know these families. Grounded theorists utilize the emic understandings of the world: they use categories drawn from respondents themselves and tend to focus on making implicit belief systems explicit. Hass and Seung-Lark (2017) describe implicit and explicit thoughts. From what I experienced, implicit thoughts are subconscious beliefs that people are not conscious of having. Explicit thoughts are those beliefs that people voice, and are part of their outward identity.

The participants in my research were involved in a self-reported scale. The responses were based on their explicit thoughts, (e.g., of government, additives, or
their professed interest in learning more) yet their subconscious beliefs (implicit thoughts) are revealed by their behavior (what I observed as their ARS category).

From my research, one's identity and implicit thoughts are more difficult to observe and understand, unless researchers are able to observe participants repetitive actions. Sometimes a person’s actions are contrary to their explicit beliefs.

3.6 Literature of Scalar Theories: Survival, Student Development, Tone and Optimism

*We will have to repent in this generation not merely for the vitriolic words and actions of the bad people, but for the appalling silence of the good people.*

Martin Luther King, Jr.

The results of these surveys and interviews developed an instrument to better characterize people’s perspectives and perceptions of additives and chemical exposures in their environments. However, the overarching implications, have far reaching utility by providing developers of significant learning experiences a ladder to show cogenerative students status and how to help them climb (Fink, 2013). These levels could positively or negatively impact their ability to prepare for natural disasters depending on what they are willing to devote to the process of learning. Paulo Freire’s learning theory (1970a, 1970b, 1970c, 1998a, 1998b, 2004a, 2004b), with special focus on Rossatto’s (2005) conceptual framework provides a post construction framework that supported my understanding of the need for an Advocacy Response Scale. The existing dialogue surprised me after searching for these combined pedagogies, theories, surveys, and methods of conceptualization for
the responses and behaviors pertaining to survival, student development and ways of knowing.

A humanizing education is the path through which [people] can become conscious about their presence in the world—the way they act and think when they develop all of their capacities, taking into consideration their needs, but also the needs and inspirations of others. (Freire, 2004b)

3.6.1 Constructions of Optimism and the Advocacy Response Scale

One of the fascinating parts of my research for this thesis was to learn about figures such as the one below. Rossatto’s development of Freire’s work into this table is a great representation of what I aimed to capture in creating the advocacy response scale.

<table>
<thead>
<tr>
<th>Transformative Optimism</th>
<th>Blind Optimism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Looks at transformation of social power with emphasis on collective action. It is hopeful about future.</td>
<td>Shies away from examining balances of power. It indicates oblivion conditions that prevent consciousness or self-determination.</td>
</tr>
<tr>
<td>Fatalistic Optimism</td>
<td>Resilient Optimism</td>
</tr>
<tr>
<td>Recognizes the problem of unequal power yet is without hope of changing it.</td>
<td>Transforms at the individual level and gains hope transforming social power imbalances.</td>
</tr>
</tbody>
</table>

Figure 3.6.1- A Freirean Mapping of Optimism and Desires. (Rossatto, 2005, p. 47).
“Fatalistic optimism shows beliefs and attitudes where events are fixed in time, promoting feelings of powerlessness to change these events” (Rossatto, 2005). Ríos-Uribe (2009) describes fatalistic optimism as: “...this group of people would believe others (government, public agencies, teachers) have the responsibility to be prepared for the community.” The idea that they can’t do anything about it is one of the key aspects of this condition. In terms of definitions, the description of overwhelm/apathy is similar fatalistic optimism.

Blind optimism is described by Rossatto (2005), the creator of Figure 3.6 as “...a condition of oblivion that prevents consciousness or self-determination”. Ríos-Uribe (2009) describes blind optimism as: "They either believe a tsunami or earthquake will not happen during their lifetime, or if it does, that there would not be significant impact.” In comparison to the ARS this would be similar to denial and they would not be prepared for natural disasters.

“Resilient optimism reveals conformation to normative order as a means to achieve an individualistic future goal” (Rossatto, 2005). This individualistic or family self-efficacy is described in section 3.5.2. above. Ríos-Uribe (2009) describes people who act with resilient optimism: “Their goal is to protect themselves and their family; they do not perceive that it is important to work with neighbors and other members of their community. They expect others (government, public agencies, teachers) will help them to prepare and to act at the moment of the natural hazard event…” Although they are prepared as a family, because they do not have the resilience of the community, the “domain would not be well prepared” and they are
missing an opportunity to grow during the preparations with other families (Ríos-Uribe, 2009).

“Transformative optimism sees the formation of a collective resistance against social processes that produce alienating realities, with the hope of achieving a liberating future” (Rossatto, 2005). I described this individual or family as a community organizer. This is the only domain that is described as being well prepared for facing natural hazards.

The condition of families or individuals that I described in the ARS that is not part of the Constructions of Optimism, is complacency. Described as a condition of preparedness being below self-efficacy, the literature would suggest that they are not adequately prepared either. When compared to other developmental levels or abilities though, complacency has unique characteristics that require attentiveness to bring them up tone.

3.6.2 L. Ron Hubbard’s Tone Scale

Additional parallels to the advocacy response scale can be drawn by examining The Tone Scale in L. Ron Hubbard’s (1951) work Science of Survival. The Tone Scale is represented in numerical fashion on a scale of 1-4. In simplified fashion I placed the Hubbard’s level first and then the ARS level in parenthesis:

- Apathy (Overwhelm/apathy) is at 0.05, with Fear slightly higher at 1.0.
- Antagonism and Hostility (Denial) are at around 2.0
- Boredom (Complacency) is 2.5
- Conservatism (Self-Efficacy) is 3.0
- Enthusiasm (Community Organizer) is 4.0
Hubbard’s Tone Scale rates the emotional response an individual will likely have to a given situation. Related to the Advocacy Response Scale, it measures the adaptive capacity and resiliency a person has, and their ability to act. A person can be said to have either a tendency toward life or death depending on what tone they tend to exhibit. Remaining above 2.0, a person is said to be improving. People chronically living below 2.0 tend to be deteriorating more quickly.

In tandem with this, Hubbard describes what he calls The Dynamics of Existence where a person’s abilities and personal efficacy have a varying capacity for affecting those around them. Viewed as concentric rings, the higher a person’s emotional tone, the greater effect they can have. The effect progresses from the individual to family, community, humanity and onward to infinity.

3.6.3 Student Development: Perry’s Scheme, Moral Stages, and Transformative Learning

The ARS I developed represents increasing levels of consciousness, to a large extent. How competent you are to perform in a survival situation is not simply a measure of your knowledge base. There are plenty of “armchair survivalists” out there who have read a lot of books on the subject. The question is: If they were presented with a survival situation, could they put that information into practice?

Apathy / Overwhelm – Fits with Perry’s (2011) description of Basic Duality. There is us, and there is the rest of the world. There is right and wrong, and not much in between. People in apathy are very pliable and easily subject to authoritarian command. Rising slightly higher, this level of advocacy is also seen in Perry’s
Multiplicity Subordinate level. There is the recognition that right can be determined to a certain point, but this person is not capable of reaching beyond that.

**Denial** – Perry’s (2011) Multiplicity Correlate or Relativism Subordinate. “The Oppositional students seize on the notion of legitimate uncertainty as a means of raising Multiplicity to the status of a realm on its own, correlate with and over against the world of Authority in which Right Answers are known.” These people tend to say that you have the right to your opinion, and you need to keep yours to yourself.

**Complacency** – Perry’s (2011) Relativism Correlate position in which “some or most knowledge may be relativistic while some remains absolute and dualistic.”

“Commitments are foreseen as necessary to a responsible life, but they have not yet been made or experienced. Higher levels of Complacency are similar to Perry’s Commitment Foreseen. “The word Commitment refers to a person’s affirmative acts of choice and orientation in a relative world.” These commitments might be spouse, kids, career, mortgage, etc.

**Self –Efficacy** - The Handbook of Transformative Learning edited by Taylor and Cranton (2012) John M. Dirkx (Ch7) states that “…transformative learning involves making sense of these outward expressions of our inner selves.” Also Jack Mezirow’s Transformation Theory (Ch5) the “focus is on how we learn to negotiate and act on our own purposes, values, feelings, and meanings rather than those we have uncritically assimilated from others – to gain greater control over our lives.” (Taylor and Cranton, 2012)
In Perry’s Scheme (2011) higher positions where commitments are developing, an evolution is described where the person goes from hesitation about commitment to considering commitments, and finally to developing commitments.

**Community Organizer**

In *Moral stages and moralization: The cognitive-developmental approach* (2011) Kohlberg describes a moral development scale with 3 phases, under which there are two sub-headings. In the first, “Pre-moral” phase, the base personality responds to Obedience vs. Punishment (Overwhelm/apathy-ARS). Moving up from that is Individualism and Exchange (Denial to Complacency-ARS). The second phase is “Conventional.” It could be said that the average individual finds themselves in this phase most of the time. They are a “Good Boy” or “Good Girl” and viewed as being nice (Complacency-ARS). Further up is the “Law and Order” or “Social Judgment” state, where a person is trustworthy and is willing and willing to sit in judgment of others in the community (Self-efficacy-ARS). The third phase begins where a person desires a Social Contract with their fellow humans, is willing to work for the greater good, and recognizes times that the law may not always work (Self-efficacy to Community Organizer-ARS). The highest state in this moral development scale is one in which the individual recognizes the existence of a Universal Ethical Principle. Examples of notable leaders who are said to have achieved this level of morality are Mahatma Gandhi, Nelson Mandela, and Dr. Martin Luther King, Jr (beyond Community Organizer-ARS). Perry’s Scheme (2011) didn’t have a higher level to compare with community organizer.
While different, in the final analysis, all of these scales have one thing in common. The higher on the scale an individual lives their life, the greater their chances of student success and advocacy for inclusion of others including concepts relating to survival and a person’s adaptive capacity to difficult situations.
Chapter IV: Discussion and Conclusions

In summary, the families primarily had a self-reported perceived knowledge that (they didn't know that much), concern (people were more concerned than knowledgeable), and interested (they were more interested than concerned). Perceptions from 80% of the families self-scaled as community organizers; knowledgeable, concerned, and interested in grass roots change. The remaining 20% self-reported as complacency. As I mentioned before that based on 5 years in this community (as an ecologist, researcher in anthropology, and neighbor to these families), I evaluated the 10 families as 50% community organizers, 30% self-efficacy, 10% complacency, and 10% (one family) on the bridge between denial and overwhelm/apathy.

The scale helps people shift their consciousness. The levels in the scale help people be metacognitive about their consciousness vis-a-vis advocacy. Intended audience is also a justification for a scale use (policy people; NGO people, etc).

The survey, though small, was sufficient both for determining the concept of Sustainable Survival and the factors that drive a person, family, town up the ARS. Most of the families I interviewed want and need to be more than “armchair survivalists”. The Advocacy Response Scale, thus, is designed to build confidence, leadership, and adaptive capacity through systems of support rather then oppression. Creating a buy in mentality through hands-on real world activities that build their communities. To evolve within our Gaian system, individual human development, and thriving families must increase productivity levels and work symbiotically within their ecosystem of choice to develop organized communities.
Reading labels is an essential practice just as important as reading the price tag. An increased awareness of the people, places and things around us will enable a more awake experience of life. Lifestyle choices (such as amount of exercise and addictions) affect the quality of people’s lives, but perceptions of additives and exposures will impact their buying power from purchased food items to local organic food (LOF). Perceptions are really the responsibility of the individual but the impacts are experienced in complaints of industry, and the interviewees feel that regulatory agencies are allowing unethical practices. Wider public awareness has resulted in increased concerns and created a society that is interested in learning more. The purpose of this research was to determine what enabled individuals to act for themselves and others through survival methods. What has been discovered is that there are levels of perception and action that relate to knowledge, concern and interests. As it turns out, rural families are very interested and want to know what actions they might need to take. Responses on perceived health impacts were based on experiences stemming from consuming certain foods and then removing those ingredients and observing the renewed health.

4.1 Disconfirming evidence

Now I will discuss disconfirming evidence. That is, anything that contradicts what I was thinking or stated. Even though the questions themselves stimulated interest and concern, which produces a higher self-reporting score, the participants responsiveness to community needs or advocacy have been negligible in practice over the past 5 years of knowing these families.
The results showed that 20% percent of the families did not self-report as community organizers. The 10 families tended to select higher values on the scale. After 5 years in this community as an active member and ecologist, I began my work in applied anthropology. I defined the five categories of the ARS in Section 3.4 above but now I will use quotes from the interviews to re-categorize the families (see Table 4.1 below). The definitions and evaluations developed are based on years of experience with the families interviewed. When I compared the 10 families self-reported levels with my observations, I saw differences in four of the families.
Table 4.1 - Advocacy Response Scale: Disconfirming Evidence

<table>
<thead>
<tr>
<th>Family Interviews</th>
<th>Advocacy Response Scale: Self-Reported</th>
<th>Reevaluation: based on my observations</th>
<th>Categories</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>9- Brian</td>
<td>Community Organizer</td>
<td>Community Organizer</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>8- Yaya</td>
<td>Community Organizer</td>
<td>Community Organizer</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>5- Dana</td>
<td>Community Organizer</td>
<td>Self-efficacy</td>
<td>Lower by one category</td>
<td>-16</td>
</tr>
<tr>
<td>4- Angel</td>
<td>Community Organizer</td>
<td>Self-efficacy</td>
<td>Lower by one category</td>
<td>-16</td>
</tr>
<tr>
<td>7- Andre</td>
<td>Community Organizer</td>
<td>Self-efficacy</td>
<td>Lower by one category</td>
<td>-15</td>
</tr>
<tr>
<td>1- Joe</td>
<td>Community Organizer</td>
<td>Community Organizer</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>10- Mara</td>
<td>Community Organizer</td>
<td>Community Organizer</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>2- Michelle</td>
<td>Community Organizer</td>
<td>Community Organizer</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>3- Crystal</td>
<td>Complacency</td>
<td>Overwhelm/Apathy and Denial</td>
<td>Lower by one to two categories</td>
<td>between -15 &amp; -35</td>
</tr>
<tr>
<td>6- Brandon</td>
<td>Complacency</td>
<td>Complacency</td>
<td>Same</td>
<td>Same</td>
</tr>
</tbody>
</table>

Two reasons that my perceptions and the self-reported perceptions may be different is:

1.) Individuals with an interest in sharing their knowledge might have been involved in social activism already. Just being willing to answer questions with their families, about survival is a leadership quality. Needless to say that all families that I asked agreed, but any of them could have declined. It was a voluntary interview process.

2.) The responses that had the same category were not off by 15-16 points but the inability for families to select zero started the score at 15 no matter how low
they self-scored themselves. Three of the families may have chosen a lower number on the scale if it were from 0-5 vs. 1-5. Ríos-Uribe (2009) states that, “...other realities could exist for those who have been marginalized.” People tend to self-evaluate themselves higher than their actual performance.

3.) To take care of the scaling problem (0-4 instead of 1-5) participants might not be asked to scale themselves and the interviewer can go by the responses and the definitions of the Advocacy Response Scale. If this disconfirming evidence shows anything, it shows that people are more likely to overrate themselves. If the self-reporting scale is used then it could be helpful to know that students, individuals or families are not likely to choose 0, so just do the transformation of the one point per question asked at the data stage (see methods above).

4.) Cronbach’s alpha simply provides an overall reliability coefficient for a set of variables (e.g., questions). Since the 15 questions reflect three different underlying personal qualities (or other dimensions), family perceived knowledge, concern and interest, Cronbach’s alpha will not be able to distinguish between these. In order to distinguish between the three dimensions and then check their reliability (using Cronbach’s alpha), I would first need to run a test such as a principal components analysis (PCA). PCA is considered a data reduction analysis. This can be performed at a later stage of this research, perhaps during a dissertation or in developing this concept, as a tool in methodological publications.
4.1.1 Complacency to Overwhelm/apathy and Denial

Crystal is part of the mainstream. This one particular family was born, graduated from, and now works at the local public school. The entire school district (pre-K through 12th grade) is on the same campus. The idea of reading labels was beyond their comprehension. They stated, “I don’t have time to make my family dinner let alone read labels. I am not much of a worrier anyway. I just do what I need to do and stay positive.” The truth hurts. For those who have too much going on to do more than just survive, the additional complexities related to sustainability are beyond their ability. Learning about prevention seems unreasonable. I categorized this behavior as between denial and overwhelm/apathy due to the unwillingness to consider alternative viewpoints that might run counter any of their foundational beliefs or truths.

4.1.2 Community Organizer to Self-efficacy

Three families are informed, and interested in protecting their family but not necessarily capable or willing to advocate for this community or greater social change. Angel’s family is grounded in individual responsibility; this family did not have faith in the government or industry to put safe foods together; a “buyer beware” mentality. They were interested in learning more about getting better labels put on food. When asked about responsibility, they said, “It would take too long to see that type of change, so we have to protect ourselves now. The industry and FDA are too set in their ways to respond appropriately.” Angel’s family participate in community activities but don’t organize them.
Andre’s family has just started to self-advocate for their wellbeing and although very concerned and interested they have not developed the motivation to be involved in any community activities.

Dana’s family was capable of community organizing yet didn’t do it at the time and now their health issues greatly impact their advocacy for others. In her mind she is a force for the community but when actions are observed, results are lacking but her heart is in the right place.

4.2 Social Awareness of future Community Organizers

An example of social change in this research was when an 8-year-old spilled a commonly available soy sauce on her arm, and welts and hives formed as a result. At first, the parents thought she was allergic to soy sauce. However, upon examining the label, the family found a preservative, sodium benzoate, which is known to cause hives, and asthmatic responses. A few days later, at school, doing “show and tell” the young girl urged classmates to inform their parents. One of her teachers told one of the families I interviewed, “I am proud of this young person who has great potential for advocating for others beyond herself.” The ability to speak out and inform was what I was looking for in future families that could be community organizers on the ARS.

The most important thing to remember is: Start doing something even if it is not the best thing you can be doing. An analogy is when a 1,000 page paper is dropped, and then a wind scatters the pages. The only way to recover the paper is to do so a page or two at a time. It might not even be in order, but at least the recovery
process is being started. Self-preservation mode isn’t necessary when the family preservation mode is continuous and even fun.

Bondi’s (2013) concept of cogenerative dialogue should be implemented when raising individuals, families, or communities up the ARS. By teaching and learning methods. One of the problems instructors can have is students being fully engaged in the learning process. Cogenerative learning dialogues can often be the solution. This method involves the student in the decision making process and helps them recognize relevance to their lives. As they take ownership of the materials, there is a tendency to retain larger amounts of information, and stimulate interest in further learning. This collaborative and “dynamic model of learning . . . transforms students from objects into which knowledge is deposited . . . into active participants in learning.” (Bondi, 2013) It also improves the experience of instructors as they are challenged and taught by the students during the learning process. “Critical pedagogy is an invitation to establish a dialogue with the learners, considering their experiences, opinions, and thoughts.” (Ríos-Uribe, 2009)

4.2.1 Community

People in rural communities tend to participate in a variety of survival and sustainability activities (e.g. hunting, gardening, food preservation). Most do it all. They eat organic when they can afford to and would buy it more often if the difference was “on the order of” cents versus dollars. They tend to grow, harvest and preserve enough to make it through the winter. When their pantries run low, many can borrow from neighbors, and other families that live nearby. These expressed values are very different from the socio-cultural relationships I experienced when
living in cities where it was rare to even know my neighbor’s name. Many times, self-imposed restrictions of community covenants limit gardening. Some communities even have rules that forbid flowering gardens from having such common plants as tomato plants or fruit trees.

The overall public perception of additives and chemical exposures in the target community was that of a population which is knowledgeable, concerned, and interested. Overall knowledge and concern were average to high but what made these families scale toward community activism was their interest in the subject. They made comments such as, “we need to know more since we do not know very much about it,” and, “we do not trust that the food is safe.” They did not feel capable of changing the government or industry, but had more interest in changing food labels and learning how to avoid additives and chemical exposures. It was not my intent, but 40% of the interviews took close to 2 hours.

One of my neighbors told me she has cancer from a non-genetic cell mutation that is spreading through blood platelets. The Malathion she sprayed for many years “to kill pirate bugs” is what she believes caused her cancer. She was shocked that I was studying effects from chemicals, since she is learning about them also. Pirate bugs eat grass seed and are a beneficial insect to gardens; so because of an annoyance, pesticides were used and it is believed by her care providers that these caused genetic mutations, which resulted in blood cancer.

I spoke with many people, but at the same time I was able to observe the interactions between family members. (For the contexts of social and cultural phenomenon, I used formative exploratory methods, as described in the methods
above, and included the full write-ups of all the interviews in Appendix B.) I discussed the patterns and trends from my data and formed assertions.

### 4.2.2 Future Research

For future research, I would compare this pilot to a broader number of families in college towns. I would be interested in seeing how perceived education level may influence the results. I wonder if those communities with more conventional knowledge are more, or less, trusting/concerned about additives or exposures. I also speculate that economic status changes where people shop. Lower income families probably tend to shop at Winco or Safeway (100% of the families were interviewed in a rural community) and the higher income at First Alternative or Trader Joes.

### 4.3 Grassroots Change

The harmful effects of persistent chemicals are not just an issue of personal responsibility; it is a global issue with ecological impacts. The term “buyer beware” is a tool to force responsibility on the consumer. This philosophy embraced by regulatory agencies has created distrust of the government/which is charged with protecting the consumer. Public officials elected to serve our republic should neither wait until enough people are sick or more voters are aware, before taking action. “The transformation has begun towards consuming local organic food (LOF) in [British] rural towns (Tikkanen, 2014). “They have taken an oath to uphold the public interests. Corporations with lobbyists do not have much to lose, so they continue with their corporate culture of corruption and focus on the earnings for stakeholders.
“Adaptive success in life depends on much more than the conventional academic knowledge and skills taught in school” (Sternburg, 2007). The wisdom in my small community is comforting because most families are willing to confront the source of issues related to food safety, and are interested in learning more.

Usually the easiest way to select healthier foods is to shop on the outside ring of the super markets. The aisles are more expensive to shop because they tend to hold more “value added” processing. Another method is to select products with the fewer ingredients, and then learn about those.

Figure 4.3 below illustrates the interactions between global forces that affect humans and how social systems affect human nutritional needs. I added the arrow pointing up to depict human effects on global forces as well e.g., increased carbon emissions. There is a potential for positive impacts to global forces as well. I adjusted the model to show the manner in which human relationships have the capacity to affect global forces. Sometimes the culture is stuck in a routine or “survival mode” which has the most profound anthropogenic “human caused” implications. If we can continue the shift in consciousness toward sustainable survival, then human health, physical, mental and emotional will support financial stability, through LOF and community organizing. The Family Sustainable Survival School (FSSS) (Site Selection and Curriculum Development if found in Appendix C below) intends to lead the charge and “become the change we wish to see.” (Ghandi)
Through grassroots initiatives, change occurs. Social/cultural complacency allows food, health care, and ecosystems to be corrupted. Profound words cannot be paraphrased, so quoting maintains the power of its intended impact to our souls.

“Monitoring of the present and past is static unless it connects to policies and actions and to the evaluation of different futures. Embrace uncertainty and unpredictability. Surprise and structural change are inevitable in systems of people and nature.”

(Holling, 2001)
The problem is that, unless the public speaks out through research like this on a larger scale, nobody knows that the perceived concern is. What inhibits or prevents action is valuable to know in order to teach solutions through Non-Governmental Organizations (NGOs) that can identify the level of communities, families, and individuals. With the Advocacy Response Scale the initial evaluation is just the beginning. The point is to give aid or assistance that will raise the capabilities to self-efficacy and beyond for those with the adaptive capacity to shift their consciousness to a whole new level of performance based survival. People are growing organic, buying organic, or wanting to know more about what they are eating. This is a big step toward a society that is educated in how to change policy, believes it is important, and has a mind-set to make a difference.

Over the past 5 years I have volunteered for the local Gleaners and have seen a shift in patterns of responsibility and interest. The old timers were close-minded, arguing that: “our government paid hundreds of thousands of dollars for genetically modified foods to be developed. We would be wasting money if we didn’t use them.” As they have retired, younger more health conscious leadership stepped in as the coordinators and board members. Their investments in the future have shifted from purchasing totes to requesting grants to purchase a facility to work out of and improve. Now families apply knowing that this local non-profit agency provides low income members with healthy nutrient rich foods. This has formed a larger “family” that feel responsible for each other’s survival (37 families and 148 individuals). Some members come from over an hour away to be part of this group versus the gleaner group in their area. The group was 15 families for almost 25 years and has
almost tripled in 6 months. The newly established self-identifying term used for the group is “tribe.” A tribal response supports less able bodied members called “adoptees.” The relationships are being defended more than the food sources and, as a result, food insecurity is less of a concern. The concept of families teaching families broadens into building a village which expands into the possession of tribalism. I can see using “Evidence of Development from People's Participation in Communities of Learners” in the recommended communities of learners approach for NGOs to help individuals and communities become more proficient through use of the ARS. Cooperation through the incorporation of multiple families, including elders engages the younger learners to “assist the educational leaders” (Matusov & Rogoff, 1995, pg. 97) up the scale to thrive and then support others up the scale.

Participation in tribal learning (between self-efficacy and community organizing) helps each family member participate and feel useful as part of the whole. The strength between the younger and older members solidifies. This is also called solidarity where the combined understanding is stronger than each part. This is not Socialism, where resources are stolen from one group to “spread them around” and favor certain classes than others. The community benefits through willingly combined efforts. Tribalism is the end state goal of the ARS for individual communities but for a worldwide impact every community could become self-organized and maintain their own survival capacity. The ability of the community of learners to withstand natural disasters, civil unrest, or the collapse of external support systems creates motivation for sustainability activities such as creating and maintaining par levels of preserved food (O’Grady, 2016). When cohesiveness is the
learning experience, multidirectional thoughts during a panic situation are no longer overwhelming and destructive; they are constructive and embraceable. The participation approach, involves individuals becoming members of communities of practice. Through incorporation of new community members, and their relations, the community itself is changed (Matusov & Rogoff, 1995, p. 103).

4.4 Project success

This project has been successful in a variety of ways:

1. This thesis is an innovative approach to identifying character traits that inhibit their human development. An individual's ability, a families capacity for change and a communities development could manifest its full potential through understanding how to organize a “Sustainable Survival” by increasing their awareness. The “Advocacy Response Scale” is a tool for NGOs, governments, student development professionals, and individuals who are searching for an identity based on their recurrent behaviors.

2. Identifying a rural communities perception of additives and chemical exposures and how those perceptions impact their trust in government and industry. How they feel relative to the availability and the costs associated with water and food without perceived harmful ingredients. Gagliardi, 2015 sees, self-sufficiency as a curiosity that is growing and developing within communities locally and worldwide. Families are interested is in a variety of topics and are being marketed to them in many ways i.e. farm stays, homesteading, community gardens, farmers markets, workshops, science centers, and educational retreats (Green, J., 2011).
This will be an important social/cultural development where the ripple effect will be interesting to watch how this scale might be used to benefit the world. I realize that this moment in time is only a drop and criticism will arise but so will hope in people knowing how to respond to difficult situations through these caricatures of abilities individuals, families and communities could largely be improved by the individuals within not from outside forces. This is what I call “confronting your environment.” Ongoing support by those acting in the roll of community organizer now by developing those in self-efficacy mode. Advice is needed if families these or other families are truly interested in learning more about how to improve their awareness and advocacy. Many in this and other communities would benefit from a similar evaluation and self-scaling experience.

Use of these concepts do not produce instantaneous results, but they do have the potential for implementation immediately. Every day is a new opportunity to increase capabilities, resources, responsiveness, awareness and resiliency. The transition from current inhibitions that limit self-performance, into a warrior who can lead their tribe, begins with an interest in a better path and a chief that believes in you, and believe me... I do.

Jones (2012) writes for American Survivor, and these two quote are how I will finalize my thesis:

1) “The past belongs to those who took more and more while giving less and less back. The future belongs to those who can do more with less and fight those who
would take what is not theirs. The past was the age of dependency and waste. The future must be the age of self-reliance and efficiency.” and

2) “You must survive without becoming predators, or victims, or slaves. You and your children have the mission of surviving physically, mentally, morally, and spiritually. Compassion, knowledge, responsibility, freedom, and hope must survive with you.”
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Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures


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Strauss and Corbin (1990) Basics of Qualitative Research


Appendix A- Survey

Name: __________________________ (Optional)

Date __________________________

Please circle the age group you identify with: children youth parent elders

1. Do you think about survival or sustainability? If No, “Why not?” If Yes, “Why?”

2. What do you think would limit your survival most?

3. What do you identify with survival?

4. Please rank each of the following topics in terms of how informative they could be (from 1-5, 1 being the least useful, 5 being the most useful)

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<tr>
<th>Topic</th>
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<td>Water Purification</td>
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<td>First Aid &amp; Hygiene</td>
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5. Does the combination of topics enhance your interest in survival? “Why? Why not?”

6. Did you identify with one or more topics? If Yes “Which one(s)?”

7. Do your experiences enhance or hinder your survival ability? “Why? Why not?”

8. Would you be interested in other survival topics? If Yes, “What topics?”

9. How often do you participate in survival/sustainability activities? If you Don’t, “Would you?”

10. Any final comments or suggestions?
Appendix B: Interview Questions

Q1-Amber: From 1 being least and 5 being most, how much do you know about food additives?

Q2-Amber: From 1 being least and 5 being most, how much do you know about products that may have chemicals on or in them?

Q3-Amber: From 1 being least and 5 being most, how much do you know about locations that are higher risks of exposure?

Q4-Amber: From 1 being least and 5 being most, how much do you know about potential health impacts?

Amber: Do you feel comfortable sharing examples of how foods have influenced your life?

Q5-Amber: From 1 being least and 5 being most, how much do you know about industry and/or government involvement?

Q6-Amber: From 1 being least and 5 being most, how concerned are you about food additives?

Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?

Q8-Amber: From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?

Q9-Amber: From 1 being least and 5 being most, how concerned are you about fluoride?

Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?

Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?

Q12-Amber: From 1 being least and 5 being most, how interested you are in learning more about sources of chemical exposures?

Q13-Amber: From 1 being least and 5 being most, how interested you are in learning about labeling improvements?
Q14-Amber: From 1 being least and 5 being most, how interested you are in learning about forms of negligence and potential industrial or governmental responsibility?

Q15-Amber: From 1 being least and 5 being most, how interested you are in learning about potential health impacts?
Appendix B- Family Interviews

Interview #1- Joe's Family (pseudonym)

Amber: Does your family participate in survival or sustainability activities?
Joe: We consider survival frequently.
Amber: Why?
Joe: Because we know can’t depend on the grid and outside resources to keep us alive.
Amber: Can you give me examples?
Joe: Structural changes, food preparation, gardening and hunting. We are also stockpiling medical supplies.
Amber: What do you mean by structural changes?
Joe: creating backup heat and power sources including harvesting gray water for gardening.
Q1-Amber: From 1 being least and 5 being most, how much to you know about food additives?
Joe: Well, some people mainly look out for GMOs and chemicals like MSG, but when I experienced heartburn and felt my blood sugar spike I noticed this happened after lunch. So I stopped drinking Coca-Cola and the symptoms went away. That's when I started looking for ingredients without high fructose corn syrup. Now I search the Internet for anything we don't recognize. So I would say five.
Q2-Amber: From 1 being least and 5 being most, how much do you know about products that may have chemicals on or in them?
Joe: Not much but more than some when thinking about Teflon and plastic baby bottles so probably a three.
Q3-Amber: From 1 being least and 5 being most, how much do you know about locations that are higher risks of exposure?
Joe: I could name a few like herbicides on the roadsides where we go on bike rides. ODOT used to use a brush mower, but now they spray chemicals instead. I have to watch out for where I allow my kids to pick blackberries. Sometimes the Parks Department sprays the grass, and picnicking gets that much more convoluted. I'm sure there's so many more places that I don't know about. Probably more like three.
Q4-Amber: From 1 being least and 5 being most, how much do you know about potential health impacts?
Joe: well I guess I answered that so I'd say five.
Amber: Do you feel comfortable sharing examples of how foods have influenced your life?
Joe: My family wants to contribute to other families well-being. So yes.
Q5-Amber: From 1 being least and 5 being most, how much do you know about industry and/or government involvement?
Joe: Well, isn't that what we expect the FDA to do? But industry shouldn't be blameless. The fact is I don't know enough probably a four.
Q6-Amber: From 1 being least and 5 being most, how concerned are you about food additives?
Joe: Yeah, I'm pretty concerned that's a five.

Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Joe's wife: I've heard about things that impair a person's ability to have children. I sometimes wonder if they're just trying to control the population by allowing us to get sick. My wife has had five miscarriages and two children. These odds seems pretty bad. Five.

Q8-Amber: From 1 being least and 5 being most, how concerned are you about current or future offspring's chemical exposure?
Joe's wife: We’ve learned that some chemicals can change your baby's DNA and the fetus’s eggs. That means three generations can be damaged while a woman is pregnant. Makes us think twice about going into the city. Five.

Q9-Amber: From 1 being least and 5 being most, how concerned are you about fluoride?
Joe: We checked. It's not in our local water and we don't use it in our toothpaste. The school does fluoride rinses, but we refuse those. Harvard studies showed it damages IQ. Do the research. This may sound like fake news or a conspiracy theory but it’s documented. Five.

Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?
Joe's daughter: My mom said not to touch the receipts because they can cause our bodies to change. We exercise and eat good food but most people can't do that. Mom would use a four?
Joe's wife: Yes, honey four is fine.

Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?
Joe: Yeah, that's a good idea how about five.

Q12-Amber: From 1 being least and 5 being most, how interested you are in learning more about sources of chemical exposures?
Joe: Very. The more we know though the more we can protect ourselves. Five.

Q13-Amber: From 1 being least and 5 being most, how interested you are in learning about labeling improvements?
Joe's wife: I learned in the military that the label is the law and so we are always looking for what the ingredients mean. Natural flavors could be anything from beaver anal glands to burnt Chinese ladies hair. Anything naturally occurring can be added as a flavor under the term natural flavoring. It’s gross. That's a five too.

Q14-Amber: From 1 being least and 5 being most, how interested you are in learning about forms of negligence and potential industrial or governmental responsibility?
Joe: Don't believe that will change anything. They lie and push things they know are dangerous. Maybe by being involved others together can help change their ways. Five.

Q15-Amber: From 1 being least and 5 being most, how interested you are in learning about potential health impacts?
Joe: After what has happened to me and my daughter who had hives after soy sauce spilled on her arm. I looked it up. Sodium benzoate has been banned in other countries. It not only causes hives but also asthma. We would have thought she had an allergic reaction. It itched and stayed on her arm for at least 45 minutes. If it does that, can you imagine what it’s doing to her insides. Now we wanna know more. You guessed it.  

Amber: Who usually shops for the family?  
Joe's wife: Whoever is in town when we need something. We make lists and the next person who goes in picks it up. The sooner the better, but it might take a week or longer before we have a reason. It's hard when we have to make a special trip.  
Amber: Where do you usually shop?  
Joe's wife: We like to shop at First Alternative but that's only once a month when we get 10% off so we buy the best of there and then at Win-co or Safeway depending on timing and where we are in town.  
Amber: Why do you prefer that location?  
Joe's wife: Prices are better at Win-co, but Safeway is on the way home.  
Amber: What do you know about organic foods?  
Joe's wife: They’re best out of your garden or at the farm stand across the river, but during the wintertime if we want fresh not canned or dehydrated and we try to buy organic it just costs almost twice as much. I know the more people buy organic. It helps reduce the price so we try to.  
Amber: Do you eat them?  
Joe's wife: Of course. As much as possible especially on salads during the summertime when they’re free or much less expensive.  
Amber: What behaviors have you changed over the past 10 years?  
Joe: We changed a lot from waiting tables and being in the Army, to farmers and preppers some may say.  
Amber: What do you mean by preppers?  
Joe's wife: So many things happen and it's our responsibility to take care of our children so disaster preparedness or just loss of power for a couple days either way we know how to manage and we're working toward better self-sustainability.  
Amber: Do you feel it is a personal responsibility to prevent exposures “buyer beware”?  
Joe's wife: Should we trust that our food is safe? Isn't that a basic human right? If it was unknown to be harmful then we would understand that when it's causing health problems and banned in other countries why doesn't the United States protect us? The FDA is supposed to protect our food sources. To say buyer beware is immoral. We’re talking about food. It's those who make the food who are responsible for ensuring it is safe. That's what we're paying them for good and safe. But, frankly, I don’t trust any of them.  
Amber: Any final comments or suggestions?  
Kids: No, but when is there going to be a class?  
Amber: I don't know but if I hear of one I'll let you know.
Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures
Interview #2- Michelle's family (pseudonym)

Amber: Does your family participate in survival or sustainability activities?
Michelle: Yes. Diversity of knowing what is unknown, and being prepared for it, is a continual process.
Amber: Why?
Michelle: Because life is challenging and there are ups and downs which we need to know how to respond to rather than just yelling for help.
Amber: Can you give me an examples?
Michelle: Food preparation, gardening, gathering, knowing how to build a fire, knowing how to dress, known what to pack, knowing how to build a shelter. We teach our kids in a manner that is fun but also purposeful most of the time. They are expected to do chores which include feeding the animals: chickens, goats, rabbits, dogs and cats. We say they feed our family and we feed theirs.
Q1-Amber: From 1 being least and 5 being most, how much do you know about food additives?
Michelle: We're picky about labels no artificial additives. If the label says GMO we don't need it. And say five since we learn what we don't know before we consume it.
Q2-Amber: From 1 being least and 5 being most, how much do you know about products that may have chemicals on or in them?
Michelle: Five also because we store food in glass not just due to pests and moisture but also because plastics leach chemicals into stored foods over time.
Q3-Amber: From 1 being least and 5 being most, how much to you know about locations that are higher risks of exposure?
Michelle: What we've done to the land is sickening. Herbicides are running into streams, clear-cutting is eroding the organic layer, people are starving around the world when there's plenty of food. Where are we safe? From what chemicals? Fukushima? When I think of any of this, I know there is so much I don't know. I rate myself at a two.
Amber: Do you feel comfortable sharing examples of how foods have influenced your life?
Michelle: This is what family does around here, we talk about what bothers us to anyone who will listen.
Q4-Amber: From 1 being least and 5 being most, how much do you know about potential health impacts?
Michelle: After I heard a neighbor telling the cashier about BPAs on receipts I started looking into it. Now I ask the stores and if they've changed and six months ago they haven't but now they say they have. I know enough not to let my children touch receipts but that's only one thing. I'm at a level two, just beginning to understand.
Q5-Amber: From 1 being least and 5 being most, how much do you know about industry and/or government involvement?
Michelle: I know enough to know they're not doing enough or what they said they'd do or what they're supposed to do by law. One thing is for sure they seem to be a working against us, together. Similarly a two.
Q6-Amber: From 1 being least and 5 being most, how concerned are you about food additives?
Michelle: five. not much else to say
Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Michelle: I moved here four years ago and had been pregnant four times never having a problem getting pregnant until now. I don't know why, and I'm concerned. Five
Q8-Amber: From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?
Michelle: very
Amber: So a five?
Michelle: yes
Q9-Amber: From 1 being least and 5 being most, how concerned are you about fluoride?
Michelle: We checked. Alsea doesn't put fluoride in the drinking water, Corvallis does though. We would rather have cavities then by-products from aluminum processing. I'm careful and concerned because I don't want it to change and not know about it. Five
Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?
Michelle: I have a weight problem, like many Americans in might be a time constraint where our time is mostly spent sitting, but I think it's more when I look at ingredients and there's high fructose corn syrup in everything. I joke with my husband that they're just fattening us up to feed us to the starving. And not laughing is a good thing because why give us so many calories when we don't need it and others do? I'm concerned that it's more than just the food and exercise. It’s environmental changes that affect our ability to lose weight. That's a five too.
Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?
Michelle: Absolutely five. I want to be able to protect my family.
Q12-Amber: From 1 being least and 5 being most, how interested you are in learning more about sources of chemical exposures?
Michelle: I am most interested five.
Q13-Amber: From 1 being least and 5 being most, how interested you are in learning about labeling improvements?
Michelle: Five. I want to know what is changing.
Q14-Amber: From 1 being least and 5 being most, how interested you are in learning about forms of negligence and potential industrial or governmental responsibility?
Michelle: Five. The internet tells us many things and then the government tells us it's fake news, yet it’s real. There are countries where they refuse shipments of wheat if one grain is a GMO. They might know more than us, or just care about their people more.
Q15-Amber: From 1 being least and 5 being most, how interested you are in learning about potential health impacts?
Michelle: five.
Amber: Who usually shops for the family?
Michelle: My husband or I usually me 2/3, but we are together usually for large trips
to Costco since it's a ways away.
Amber: Where do you usually shop?
Michelle: Costco and first alternative once a month and Safeway and Win-co the rest.
Amber: Why do you prefer that location?
Michelle: I don't prefer the usual, but can't afford the safer alternative sources regularly.
Amber: What do you know about organic foods?
Michelle: They're the best
Amber: Do you eat them?
Michelle: When we can afford them or grow them
Amber: What behaviors have you changed over the past 10 years?
Michelle: Quite a bit. My parents never read the labels or grew their own food, so I
didn't know the risks. Now I do and I'm teaching my children what to eat and what
not to eat or touch or where not to play.
Amber: Do you feel it is a personal responsibility to prevent exposures "buyer
beware"?
Michelle: I shouldn't have to but I do. I will owe what happened to morale. Why is it
always personal responsibility when somebody preys on your ignorance? Doesn't this
mentality just create more confusion and distrust when ingredients are found to be
harmful? And when they're known to be harmful they're still allowed to be used?
Amber: Who is and why?
Michelle: We're all responsible for our own behaviors. There are those among us that
don't have the empathy for other people's families so they add ingredients they know
are dangerous and they watch people get sick. The government is too busy to take
care of us, and just wastes our money.
Amber: Any final comments or suggestions?
Michelle: Thank goodness for Gathering Together Farms where we get most of our
produce. We're part of the Gleaners and we don't mind working for good food.

Note: 3 (2s) and 12 (5s) = 66/75= 88 Advocacy Response Total
Interview #3- Crystal's family (pseudonym)

Amber: Does your family participate in survival or sustainability activities?
Crystal: yes
Amber: Why?
Crystal: because that's what we do
Amber: Can you give me examples?
Crystal: We hunt, can, garden, we have cows and goats.
Q1-Amber: From 1 being least and 5 being most, how much do you know about food additives?
Crystal: **Three**. Enough to be concerned, but I don’t really know a lot of the details
Q2-Amber: From 1 being least and 5 being most, how much to you know about products that may have chemicals on or in them?
Crystal: **Three**. We grow a lot of what we eat & don’t use pesticides or herbicides
Q3-Amber: From 1 being least and 5 being most, how much to you know about locations that are higher risks of exposure?
Crystal: I know where they are at the school, and the MSDS sheets. **Three**
Q4-Amber: From 1 being least and 5 being most, how much do you know about potential health impacts?
Crystal: **Two**. I know there are problems, but I don’t know a lot about what causes what.
Amber: Do you feel comfortable sharing examples of how foods have influenced your life?
Michelle: This is what we agreed to when we participated in this interview.
Q5- Amber: Great I just wanted to be sure. From 1 being least and 5 being most, how much do you know about industry and/or government involvement?
Crystal: **Four**. I know they don’t care about us.
Q6-Amber: From 1 being least and 5 being most, how concerned are you about food additives?
Crystal: **Two**. I’m not super worried about it.
Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Crystal: **Two**. I’ve got a couple of kids, and I don’t intend to have more. Not really concerned at this point.
Q8-Amber: From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?
Crystal: I'm concerned but not much of a worrier I never thought chemicals were in our environment that could hurt us none that I've heard of before. I'm not worried about it. **One**
Q9-Amber: From 1 being least and 5 being most, how concerned are you about fluoride?
Crystal: We give the kids fluoride here at school. It's good for their teeth. I'm not concerned at all. **One**
Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?
Crystal: I have never heard of it before but it sounds like a concern for many. **Four**

Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?
Crystal: **four**

Q12-Amber: From 1 being least and 5 being most, how interested you are in learning more about sources of chemical exposures?
Crystal: **One**, I am too overwhelmed to make dinner I am not going to worry about what is in the food I buy. Since I am overwhelmed, and I can't cook my own family dinner after work, I am not going to learn about new problems.

Q13-Amber: From 1 being least and 5 being most, how interested you are in learning about labeling improvements?
Crystal: **Three**, since I'm not often a label reader.

Q14-Amber: From 1 being least and 5 being most, how interested you are in learning about forms of negligence and potential industrial or governmental responsibility?
Crystal: Well if somebody is responsible and interested in helping. I'd say **five**.

Q15-Amber: From 1 being least and 5 being most, how interested you are in learning about potential health impacts?
Crystal: **Three**, We don’t get sick that often.

Amber: Who usually shops for the family?
Crystal: My husband at Win-co on his way home from work in Corvallis.

Amber: What do you know about organic foods?
Crystal: We eat organic meat we raise ourselves we grow a garden and we're always looking for a cost effective source in the winter.

Amber: What behaviors have you changed over the past 10 years?
Crystal: The same. Nothing's changed.

Amber: Do you feel it is a personal responsibility to prevent exposures “buyer beware”?
Crystal: The makers of the food and the government are responsible enough. People can buy their food or not.

Amber: Any final comments or suggestions?
Crystal: nope

Note: 3 (1s) 3 (2s) 5 (3s) 3 (4s) 1 (5) = 41/75= **55 Advocacy Response Total**
Interview #4- Angel's family (pseudonym)

Amber: Does your family participate in survival or sustainability activities?
Angel: Yes. Exercise first aid certifications gardening hunting dehydrating canning
Amber: Why?
Angel: It's part of our routine. We believe in it.

Q1-Amber: From 1 being least and 5 being most, how much do you know about food additives?
Angel: Three. I think I’m pretty well informed

Q2-Amber: From 1 being least and 5 being most, how much do you know about products that may have chemicals on or in them?
Angel: Four. We avoid processed foods

Q3-Amber: From 1 being least and 5 being most, how much do you know about locations that are higher risks of exposure?
Angel: Two. We don’t live in a Superfund area. That’s all I know.

Q4-Amber: From 1 being least and 5 being most, how much do you know about potential health impacts?
Angel: Three. I am concerned. Don’t know what if anything other than avoid it I can do.

Amber: Do you feel comfortable sharing examples of how foods have influenced your life?
Angel: That’s not a problem for us, our names are changed so we are happy to share the experiences we have had.

Q5-Amber: From 1 being least and 5 being most, how much do you know about industry and/or government involvement?
Angel: Three. I know industry only cares about money and government doesn’t always do its job to protect us.

Q6-Amber: From 1 being least and 5 being most, how concerned are you about food additives?
Angel: Four. I’m scared to give things to my family which I can’t read.

Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Angel: between four and five

Q8-Amber: From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?
Angel: Four. I want to protect my babies.

Q9-Amber: From 1 being least and 5 being most, how concerned are you about fluoride?
Angel: Four. We don’t use toothpaste with fluoride in it.

Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?
Angel: Four. Who wouldn’t be concerned?

Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?
Angel: Five. I am very interested in finding out how to protect my family
Q12-Amen: From 1 being least and 5 being most, how interested you are in learning more about sources of chemical exposures? Amel: between five and four. I want to know more, but it’s hard to find the time.

Q13-Amen: From 1 being least and 5 being most, how interested you are in learning about labeling improvements? Amel: five. They should have to tell us what the chemicals are that they’re putting in our food.

Q14-Amen: From 1 being least and 5 being most, how interested you are in learning about forms of negligence and potential industrial or governmental responsibility? Amel: Three because I think it’s our personal responsibility not the government's or the industry's.

Q15-Amen: From 1 being least and 5 being most, how interested you are in learning about potential health impacts? Amel: Five. It’s all out there on the internet.

Amer: Who usually shops for the family?

Amel: 50/50 my husband or I

Amer: Where do you usually shop?

Amel: Win-co or grocery outlet

Amer: Why do you prefer that location?

Amel: least expensive in the area

Amel: What do you know about organic foods?

Amel: not a lot but with interferes with chemicals we should buy them but old habits die hard. We could afford it but we forget and walk by that section. It would be better if they were within 50c or that range.

Amer: What behaviors have you changed over the past 10 years?

Amel: Tons more physical activity eating less protein more aware of what sugars, and eating more honey.

Amer: Do you feel it is a personal responsibility to prevent exposures “buyer beware”?

Amel: For sure, it's not my place to judge how to raise their family. We raise ours without cable TV. I don't expect that the food is good for us and it's my responsibility to protect my family.

Amer: Any final comments or suggestions?

Amel: There has been poisons in the food for decades and they are not going to change by what I say so I have to be aware of what I am buying and what my family is eating.

Note:1 (3) 1 (4) 13 (5) = 72/75= 96 Advocacy Response Total
Interview #5- Dana's family (pseudonym)

Amber: Does your family participate in survival or sustainability activities?
Dana: oh yes, yes lots gardening canning we have three sources of heat, electric propane and a generator. Our children hunt and fish and bring us food.
Amber: Why?
Dana: It tastes better when we make it ourselves and when it comes from our woods.
Amber: From 1 being least and 5 being most, how much do you know about food additives?
Dana: Five, for me and my husband and my kids and my grand-kids 'cause we're learning the hard way that just because you're allowed to use it or eat it doesn't mean it won't kill you.
Amber: What do you mean Dana, are you ok?
Dana: I am not going to use pesticides anymore. I used Malathion for 10 years on the box elder bugs and now I have cancer. They didn't even hurt my garden. They just ate the seeds in the grass. They used to cover my walls and I hated that. Now I have blood cancer and it's not genetically inherited. I was so careful eye wash my fruit and vegetables with purely essentials. Their moves the wax pesticides and chemicals off even the hardest fruits to clean like strawberries.
Amber: I am sorry this has happened do you want this conversation to be private?
Dana: No I want people to know so they don't just believe that everything is going to be safe for them to use and eat..

Q1-Amber: From 1 being least and 5 being most, how much do you know about products that may have chemicals on or in them?
Dana: Five. I've learned a lot

Q2-Amber: From 1 being least and 5 being most, how much do you know about locations that are higher risks of exposure?
Dana: like country vs. city?
Amber: If that's what you think of, when I ask about what places
Dana: We put up signs so they don't spray herbicides in our gardens, so not much a three.

Q4-Amber: From 1 being least and 5 being most, how much do you know about potential health impacts?
Dana: Well it has been a learning experience about epigenetics and changes to DNA that are responsible for good changes as well as bad. I know about a four, but granddaughter who's studying nursing knows about a five.

Q5-Amber: From 1 being least and 5 being most, how much do you know about industry and/or government involvement?
Dana: While we both dropped the ball since the label had a warning. But I followed the label each time and I still am sick. They also failed to make the right call on GMOs. That's about a four also.

Q6-Amber: From 1 being least and 5 being most, how concerned are you about food additives?
Dana: Since I am a pre-diabetic I bake my own foods. I replace ingredients to fit my objectives. This is a five for me since I believe what they make it with is about the worst combination ever created.

Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Dana: for my kids and grandkids yes four to five

Q8-Amber: From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?
Dana: Five

Q9-Amber: From 1 being least and 5 being most, how concerned are you about fluoride?
Dana: Five I know that stuff is all about mind control. Good thing we don’t have it in our water.

Amber: I have heard this quite a bit and I checked myself when I moved here.

Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?
Dana: Do you have something particular in mind?
Amber: There has been research done on animals and BPA among other chemicals and studies show that receipts from stores and other chemical exposures can change DNA. The ones that change weight are called obesogens.
Dana: I do know that before I had been trying to lose weight and then chemotherapy fixed that. Funny that you're learning about this in school and I am learning through experience. Five

Amber: No one should have to experience the effects of chemical exposure and yet it surrounds many of us that have had enough and are learning to avoid it whenever possible.

Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?
Dana: Could it create a higher interest by going through it?
Amber: Of course, if you let it.
Dana: I am more interested in everything, since this experience. It's a five.

Q12-Amber: From 1 being least and 5 being most, how interested you are in learning more about sources of chemical exposures?
Dana: That's a five

Q13-Amber: From 1 being least and 5 being most, how interested you are in learning about labeling improvements?
Dana: I have seen changes to our labels just in the past six months. Five

Q14-Amber: From 1 being least and 5 being most, how interested you are in learning about forms of negligence and potential industrial or governmental responsibility?
Dana: Five. I feel like I was tricked by the people who made that chemical. I used it as directed, and I still got the cancer.

Q15-Amber: From 1 being least and 5 being most, how interested you are in learning about potential health impacts?
Dana: Five

Amber: Who usually shops for the family?
Dana: We do everything together, when you get to be our age, normally we don't leave alone.
Amber: Where do you usually shop?
Dana: Well at Bi-mart, Win-co, the Merc and I wear a mask to protect my immune system.
Amber: Why do you prefer that location?
Dana: It supports the local economy. Alike to people that work there. Have been going there a long time so they usually have what I need.
Amber: What do you know about organic foods?
Dana: I don't usually buy organic since I wash everything and I grow my own. Have you had carrots with salt and pepper, garlic, onion, dill, olive oil, and parsley. It's a wonderful recipe.
Amber: I usually do stir fry but don't have dill and parsley included, I'll try it sometime, thank you.
Amber: What behaviors have you changed over the past 10 years?
Dana: Yes, I have a lot of the awareness I didn't have before. I now avoid many ingredients. I also have allergies I have developed.
Amber: Do you feel it is a personal responsibility to prevent exposures “buyer beware”?
Dana: No
Amber: If not why?
Dana: There's more people responsible then you and I.
Amber: Who is and why?
Dana: Industries like taco bell and so many of the rest.
Amber: Any final comments or suggestions?
Dana: No but thanks for thinking of us for this interview.

Note: 1 (3) 1 (4) 13 (5) = 72/75= 96 Advocacy Response Total
Interview #6 - Brandon's family (pseudonym)

Amber: Does your family participate in survival or sustainability activities?
Brandon: We hunt, fish, garden and process game.
Amber: Why?
Brandon: It's how we teach our children how to survive. We don't want them to lose the skills that they need to know.
Q1-Amber: From 1 being least and 5 being most, how much do you know about food additives?
Brandon: We don’t pay much attention. It don’t worry us much. One
Q2-Amber: From 1 being least and 5 being most, how much do you know about products that may have chemicals on or in them?
Brandon: Chemicals like in big cities that's a three.
Q3-Amber: From 1 being least and 5 being most, how much do you know about locations that are higher risks of exposure?
Brandon: We don't go into town much select two.
Q4-Amber: From 1 being least and 5 being most, how much do you know about potential health impacts?
Brandon: We have been sick from many things in our food, so that's a five.
Q5-Amber: From 1 being least and 5 being most, how much do you know about industry and/or government involvement?
Brandon: I've given up on most industry and government so that's a two.
Q6-Amber: From 1 being least and 5 being most, how concerned are you about food additives?
Brandon: One! Do you know how dirty money is? We have done more drugs then what's in our food and on the money we handle there are so many more things to worry about.
Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Brandon: We still use teflon pans and those are supposed to be bad for you, from a long time ago. They can't stop us from having kids. That's a one also.
Q8-Amber: From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?
Brandon: While our kids should never be affected so four is concern that the home.
Q9-Amber: From 1 being least and 5 being most, how concerned are you about fluoride?
Brandon: That is on purpose so we know and are concerned. I would call that Five.
Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?
Brandon: I don't think it's that easy to change us, so we're not that concerned, three.
Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?
Brandon: one
Q12-Amber: From 1 being least and 5 being most, how interested you are in learning more about sources of chemical exposures?
Brandon: **one.** We’re just not worried about it.
Q13-Amber: From 1 being least and 5 being most, how interested you are in learning about labeling improvements?
Brandon: **Two** because even our dog is showing signs of a grain allergy that affects his skin. Who knows, if those GMO’s are included and part of the problems we see with gluten.
Amber: In France they have wheat and people don't have anything like the allergies we have here. The only differences are their wheat comes from heritage seed stocks and the leavening agents we use instead of yeast.
Q14-Amber: From 1 being least and 5 being most, how interested you are in learning about forms of negligence and potential industrial or governmental responsibility?
Brandon: **one.** You only live once, things suck just the way we like it!
Q15-Amber: From 1 being least and 5 being most, how interested you are in learning about potential health impacts?
Brandon: **three**
Amber: Who usually shops for the family?
Brandon's mother-in-law usually shops for the family at Win-co or Safeway.
Amber: Why do you prefer that location?
Brandon's mother-in-law: Usually it's a better deal.
Amber: What do you know about organic foods?
Brandon's mother-in-law: We have a limited income if it was about the same price as we would buy organic. Since it's not we eat the food out of our garden.
Amber: What behaviors have you changed over the past 10 years?
Brandon's wife: None really. Same as ever. We eat wild game meat, and potatoes or Mac and cheese.
Amber: Do you feel it is a personal responsibility to prevent exposures “buyer beware”?
Brandon's wife: Watch yourself. Companies are in it only for the money and not for the people so do what they say. Beware. Somebody sometimes doesn't have something to hide, but most of the time they're not doing the right thing.
Amber: Any final comments or suggestions?
Brandon: No, but thanks for stopping by.

**Note:** 5 (1s) 3 (2s) 4 (3s) 1 (4) 2 (5) = 37/75= 49 Advocacy Response Total
Interview #7- Andre's family (pseudonym)

Amber: Does your family participate in survival or sustainability activities?
Andre: yeah we hunt and fish and we track. We do food prep and storage. We have a grow tent for gardening.

Q1-Amber: From 1 being least and 5 being most, how much do you know about food additives?
Andre: yeah we need organic so we can leave all those additives behind. But I worked at National Frozen Foods that tried to process organics. It is so hard to do because of all the weeds that grow with it. I saw how much they put on the crops to not have to deal with weeds. That would be a five. I know too much.

Q2-Amber: From 1 being least and 5 being most, how much do you know about products that may have chemicals on or in them?
Andre: four

Q3-Amber: From 1 being least and 5 being most, how much do you know about locations that are higher risks of exposure?
Andre: Four because I used to take the kids to the ditches where they had the best blackberries and now I have to watch for the No Spray signs for it to be safe.

Q4-Amber: From 1 being least and 5 being most, how much do you know about potential health impacts?
Andre: I have reversed diabetes by changing what I consume. I now work at the school and have a chance to teach them what I have learned the hard way. Aspartame I see kids drink in soda where it turns into formaldehyde. Five

Q5-Amber: From 1 being least and 5 being most, how much do you know about industry and/or government involvement?
Andre: The pharmaceutical companies are gaining from the bad health effects, so as much as industry they are also responsible for treating the symptoms and not telling their patients about the sources of the problems. It's not about freedom of choice when what you consume is known by them to damage your health and they refuse to inform people. True freedom is not afraid of being found out as fake, it is able to tell us what it could do. five

Q6-Amber: From 1 being least and 5 being most, how concerned are you about food additives?
Andre: five I try to grow a big garden to reduce our dependence on grocery stores.

Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Andre: four because did you know the vitamin K shot for babies has an additive that causes infertility? The Gardasil for genital warts given to 12 year olds for a sexually transmitted disease also damages reproductive systems.

Amber: I have heard some about this but I have not researched it yet. But now maybe I might make it a priority. Thanks for letting me know.

Q8-Amber: From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?
Andre: Vaccines are not the only concern and yet they can cause more problems than they solve. four
Q9-Amber: From 1 being least and 5 being most, how concerned are you about fluoride?
Andre's wife: Five, don't let him get on that soap box you'll be with us all day.
Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?
Andre: I had a 70% Gastrotie which is a partial bypass and I only have a stomach the size of a teacup to eat. I use to smoke to shut off the hunger and now I choose not to do that. Of course a five.
Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?
Andre: Five
Q12-Amber: From 1 being least and 5 being most, how interested you are in learning more about sources of chemical exposures?
Andre: Five
Q13-Amber: From 1 being least and 5 being most, how interested you are in learning about labeling improvements?
Andre: Five. I want to know everything I can about it.
Q14-Amber: From 1 being least and 5 being most, how interested you are in learning about forms of negligence and potential industrial or governmental responsibility?
Andre: Five. Those ****ers don’t care about any of us!
Q15-Amber: From 1 being least and 5 being most, how interested you are in learning about potential health impacts?
Andre: Five. Again, I want to learn as much as I can.
Amber: Who usually shops for the family?
Andre's wife: I do
Amber: Where do you usually shop?
Andre's wife: at Safeway
Amber: Why do you prefer that location?
Andre's wife: It's the closest store with selections we like
Amber: What do you know about organic foods?
Andre: A lot. We plant and can green beans and squash.
Amber: What behaviors have you changed over the past 10 years?
Andre: Health changes have caused me to make so many changes to my life, across the board. This has been from the foods we eat, to how much, to not smoking, to being more active, name it. We are so different now. Have you heard of Norwax, it’s a line of organic cleaning supplies?
Amber: No I will look them up but since I usually use apple cider vinegar I bet they cost a bit more.
Andre: They clean really good and aren't that expensive.
Amber: Do you feel it is a personal responsibility to prevent exposures “buyer beware”?
Andre: The government is 100% responsible allowing the FDA to serve as our evaluation process because we care about what we are exposed to and look where we are now. In a cycle of dependency... health- to hospital - to drugs to lawyers from side effects.
Amber: Any final comments or suggestions?
Andre: Look out for your family no one else is!

Note: 4 (4s) 11 (5) = 71/75= 95 Advocacy Response Total
Interview #8 - Yaya’s family (pseudonym)

Amber: What types of food activities do your family participate in?
Yaya: Gardening, wheat grain purchase at harvest, bread making, gathering food, trying to not eat certain foods like meat, cheese, milk.
Amber: Do you consider those survival and or sustainability activities?
Yaya: Well ya sure, to live, to support my life I do these things every day. We [her husband] sustain ourselves by moving and working on our food sources for us to survive. So both.
Q1-Amber: How much do you know about food additives from 1 little to 5 quite a bit?
Yaya: Quite a bit [5] so we stay away from anything processed and sold at the stores. Raw foods are also questionable since many of them have artificial vitamins that were removed and then replaced with once that can cause a build-up in our systems and even side effects.
Amber: Can you tell me more about that?
Yaya: For example milk. They strip the naturally occurring nutrients like vitamin A during ultra-pasteurization. Then they add back synthetic forms which the body doesn’t use as efficiently.
Q2-Amber: When asked the following questions would your rate them from one lease to five most knowledge? How much to you know about products that may have chemicals on or in them?
Yaya: [As she is cutting a punctured bike tire to use as rubber bands and strips of elastic instead of bungee cords] Talcum powder is toxic, it was used on babies. But not when it is used inside bike tires. Four
Q3-Amber: From 1 being least and 5 being most, How much do you know about locations that are higher risks of chemical exposure?
Yaya: High voltage power lines can change the body’s natural currents. Nuclear power plants and such industrialized places are known for their health effects. Tree farms spray by helicopter so I try to be aware in case I am in the field or passing by and the wind changes direction. Four
Q4-Amber: How much do you know about potential health impacts from food?
Yaya: Cancers, disorders, illnesses, diseases there is quite a bit to know so the saying goes, the more you know the more you know nothing at all. Five
Q5-Amber: How much do you know about industry and/or government involvement?
Yaya: Are universities on the list as well? Because the public spaces spray lawns so be careful of eating on them. They all have lobbyists that influence our government officials, they are owned by big business and the government is not doing anything to stop it from occurring. There is another saying I use, “Never attribute to malice what you can account for by incompetence.” Five
Amber: Do you know who said that?
Yaya: I am not sure it was a long time ago when I read it.
Q6-Amber: How concerned are you about food additives? Can you rate your concern from 1 to 5?
Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

Yaya: Very, so I don’t participate in the normal food chains that could impact our health. Five
Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Yaya: Consumption of preservatives, additives or other artificial flavors?
Amber: If that’s what you think of when I ask.
Yaya: There is a book: Read it, Disease offspring’s offspring Why diets make us fat. Five
Q8-Amber: Ok sounds interesting, From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?
Yaya: Not so much for me but for those I care about. Even if we are not related. Five
Q9-Amber: How concerned are you about fluoride?
Yaya: I don’t want to ingest it and I don’t know why they are forcing people to consume it by putting it in the water supply. Even if the majority votes yes, it is a chemical that some have found major concerns with. It should be a personal choice instead of a widespread treatment method. There was another book about Ken passing across America near the shale sands in Texas and he talked to people, they were very concerned about the aquifer contamination. Especially the Su Indians who were very upset at the loss of the water supply for their people. Five
Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?
Yaya: I can see how the food supply chains have changed people and it is sad to know that they are hurting people and using excuses like it’s their choice to eat it. It’s hard to change others so I just change how we interact with it by not using it. Five
Amber: We can talk more after the interview I have some ideas that you may already know about.
Yaya: Ok meet you here after the interview then, [she laughs and I laugh]
Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?
Yaya: I am always learning at the library internet about new kinds of foods and effects so if you know more I am open ears. Five
Q12-Amber: From 1 being least and 5 being most, how interested you are in learning more about sources of chemical exposures?
Yaya: Five
Q13-Amber: How interested you are in learning about labeling improvements?
Yaya: The government has just been bought off by the influences of irresponsible industry and they are not trying to make products with accurate labeling anymore. Labels are deceptive and names of chemicals can be renamed or put under acronyms so you don’t recognize them. Five
Q14-Amber: How interested you are in learning about forms of negligence and potential industrial or governmental responsibility?
Yaya: Well that was a good example of negligence on behalf of the supermarket so I am interested in knowing more not because it affects me personally but it affects those I care about. Five
Q15-Amy: From 1 being least and 5 being most, how interested you are in learning about potential health impacts?
Yaya: There was a TED Talk I listened to about how supermarkets have been caught on tape changing the best buy dates or repackaging food with new dates when some of the food has mold that causes cancer on it, but they are doing it to make money and the employees could lose their job if they don’t. No wonder there are drug problems in rural communities, even when you get a job that asks you to do immoral acts that tear out our souls. The choices are not feed your family due to not having enough money for rent or food or make others sick from food they purchase. Five

Amy: Where do you usually shop?
Yaya: In the garden, food forests, from what I have dehydrated or stored and occasionally the gleaners pass food on they don’t pack into boxes or the food bank if necessary. I also make things for the local Merc to sell and they give me a credit for items.

Amy: Why do you prefer that location?
Yaya: I only travel by bike and have lived out of doors for 40 years. I go to Corvallis twice a year to pick up stuff like scrap leather from contacts I have made over the years, I save that stuff I use. I like XXXXX and this is where I stay.

Amy: What do you know about organic foods?
Yaya: Yes, they are preferred but that’s in all how they are marketed not necessarily the reality. If people spend the money for them they shouldn’t have to find out the free range chickens are crowded in a four foot plot with hundreds of chickens. What’s really organic is what people usually have around here. They say if there is a bug on it you picked the right one.

Amy: What food related behaviors have you changed over the past 10 years?
Yaya: Life has been a lesson and so much of what I changed long ago I sustain as my energy is less so 98 percent of what I do is to conserve energy. It is a waste of time to try to convince other people of the problems. The Deepak Chopra says, one, teach by example, two, teach by example, three, teach by example.

Amy: Do you feel it is a personal responsibility to prevent exposures “buyer beware”?
Amy: Any final comments or suggestions?
Yaya: Once the interview is over, why yes.
Amy: Great looking forward to it.

Note: 2 (4s) 13 (5s) = 73/75 97 Advocacy Response Total
Interview #9- Brian’s family (pseudonym)

Amber: What type of food activities does your family participant in?
Brian: Home preparations like gardening, and processing the food for winter.
Amber: Do you consider those survival and or sustainability activities?
Brian: Sustainability that could function as a solution to a survival situation.
Amber: How often are they included in your routines?
Brian: During the summer more than any other time of year, but we usually freeze a bunch and then boil it down during the winter when the stove going helps to warm the house. It is also quicker to get more food processed before it goes bad.

Q1-Amber: From 1 being least and 5 being most, How much do you know about food additives?
Brian: Well I am a master gardener for a reason. I don’t like the idea of others making food for me, who knows what they do with it. 5

Q2-Amber: From 1 being least and 5 being most, How much do you know about products that may have chemicals on or in them?
Brian: Artificial sweeteners and other additives I have read about quite a bit. Even just bought a book called Epigenetics and it talks about how food can change our phenology. 5
Amber: Can you tell me more about that?
Brian: I haven’t read a lot of it yet, but it describes how chemicals in our food changes our DNA and although in a natural environment that may help us adapt to changes, when it is artificial and being ingested it can have significant effects on the body. [Silence, but I waited to hear more. He talked more about this in later questions].

Q3-Amber: From 1 being least and 5 being most, How much do you know about locations that are higher risks of chemical exposure?
Brian: Well, in my home I removed Teflon a long time ago. I removed aluminum too since it sloughs off into the food. 5

Q4-Amber: From 1 being least and 5 being most, How much do you know about potential health impacts?
Brian: I have studied this for many years so I have a fair bit of knowledge related to contaminants in our food. 5

Q5-Amber: From 1 being least and 5 being most, How concerned are you about food additives?
Brian: I maintain a greenhouse year ‘round with my brother and I use most of our products from those plants and maybe some from a delivery monthly in Philomath from an organic supply company. 5
Amber: What company is this? I don’t believe I have heard of it before.
Brian: Azure Standard is great because it cuts out the middle of the corporate structure so it costs less and it’s all organic products.

Q6-Amber: From 1 being least and 5 being most, How much do you know about industry and/or government involvement?
Brian: I know they won’t change unless we make it clear that we want them to. They’re not motivated by the right thing. 5
Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Brian: Not for my wife and I but greatly concerned about my grandchildren due to bioaccumulation of these chemicals in their reproductive systems. 5

Q8-Amber: Wonderful. I’ll look into it. Thanks. From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?
Brian: There are some chemicals like BPAs from plastics or receipts that can affect women and children’s reproductive systems and reduce their chances of having offspring. I talk with every cashier I see and then they changed the coating at the library, First Alternative, Lowes, and Bi-mart. 5

Q9-Amber: From 1 being least and 5 being most, how concerned are you about fluoride?
Brian: We don’t use it and I see more problems than benefits in taking it. The chances of swallowing the remnants on your teeth is too high and I’d rather just take care of my own oral hygiene. 5

Q10-Amber: From 1 being least and 5 being most, how concerned are you about weight gain associated with chemical exposures?
Brian: There is another part of the book I mentioned before that talks about obesogens. They change how the body talks through the endocrine system. They make you think your hungry when your not. The opposite feeling can also be affected. I can’t gain muscle my wife struggles with losing weight. 5

Q11-Amber: From 1 being least and 5 being most, how interested you are in learning about preventive measures?
Brian: This is all of interest to me. I am interested in survival activities and HAM radio as you know from coming to classes also. 5

Q12-Amber: From 1 being least and 5 being most, How interested you are in learning more about sources of chemical in food?
Brian: Very and since I am the community coordinator if you let me know of a list of people interested we can do a class. 5

Q13-Amber: From 1 being least and 5 being most, How interested you are in learning about labeling improvements?
Brian: I actually wrote letters to advocate for change of GMO labeling through the FDA. 5

Q14-Amber: From 1 being least and 5 being most, How interested are you in learning about forms of negligence and potential industrial or governmental responsibility?
Brian: We found out about a malfunction of our water purification system when too much chlorine was added and stripped the coating on the rocks and allowed too much manganese to enter our systems. We were sick until we were tested and discovered the problem. 5

Q15-Amber: From 1 being least and 5 being most, How interested you are in learning more about potential health impacts?
Brian: I am 70 years old and mountain bike faster than most kids. I will continue to learn and have realized that prosperity is knowledge. 5

Amber: Who usually shops for the family?
Brian: I do mostly through Azure Standard.
Amber: What food related behaviors have you changed over the past 10 years?
Brian: We change every chance we get!
Amber: Do you feel it is a personal responsibility to prevent exposures “buyer beware”?
Brian: No this is too much information for people to search for and worry about. The tax payers are expecting the food to be made with safe ingredients. I am surprised there are not more lawsuits against the government and not just industries. People are getting sick and they are finding out why and there are more and more changes occurring every day.
Amber: Any final comments or suggestions?
Brian: Yes did you know natural flavors could be almost anything?
Amber: Another family mentioned this problem so it is becoming common knowledge around here at least.
Brian: Did you know that if you call them to ask what they are using they say that it is proprietary knowledge?
Amber: Yes I actually did the same thing once and that’s what they told me also.

Note: 15 (5s) = 75/75= 100 Advocacy Response Total
Interview #10- Mara’s family (pseudonym)
Amber: What types of survival and or sustainability activities does your family participant in?
Mara: Well I have two eagle scouts as children so we continue to be interested in these activities.
Amber: How often are they included in your routines?
Mara: Daily planning for seeds, starts, gardening, harvesting, processing, cleaning up and starting again every year.
Amber: Does this question remind you of something specific?
Mara: The cycles of the Earth and how we are a large part of the changes in processes. The fact is we have to do what is natural, not what is easy.
Q1-Amber: How much to you know about food additives?
Mara: I know enough not to eat ‘em. Amber: Can you tell me more about that?
Mara: We have a system where some raise meat, some garden, some weed and some earn paychecks outside the home. We sell food at the farm stand that my mother runs with my brothers and we have a great process for our wellbeing. 5
Q2-Amber: How much do you know about products that may have chemicals on or in them?
Mara: Too much. It scares me!
Amber: Can you tell me more about that?
Mara: Well most things are made to be transported across the country or even around the world. There is a movement to local foods but there are some many stores still selling products that have preservative in them. 5
Q3-Amber: How much do you know about locations that are higher risks of chemical exposure?
Mara: Daily cleaners at work mostly organic, weekly trip to Corvallis/Albany who knows?! 3
Q4-Amber: How much to you know about potential health impacts?
Mara: It is good to know about them and stay away from foods like that just like I stay away from 2nd hand smoke. 4
Q5-Amber: How much to you know about industry and/or government involvement?
Mara: I know they are preparing the food or looking over the preparation and so they are primarily responsible for what they cook up. It’s like a chef who allows rats in the kitchen. Eventually people get sick so is it the people’s fault for eating out? The rats fault for being a rat? Or the chefs fault for allowing this to get as bad and cause illness or injury? 3
Amber: So who is who so I am not assuming anything?
Mara: The rat is the industry, the chef is the government, and the customers are the public.
Q6-Amber: Great thank you for the clarification. How concerned are you about food additives?
Mara: I hope you can tell from the story I just told you that I am concerned. FIVE [not yelling just emphasizing her response]
Q7-Amber: From 1 being least and 5 being most, how concerned are you about reproductive health?
Mara: I am aware and do what I can to teach others. 5
Q8-Amber: From 1 being least and 5 being most, how concerned are you about current or future offspring’s chemical exposure?
Mara: My children were raised outside of that system of consumption and so I have faith that they know better than to expose themselves. 4
Q9-Amber: How concerned are you about fluoride?
Mara: I checked when I learned about the brain damage through lower IQ’s and am happy that we don’t use fluoride in our drinking water. Corvallis does though so when you go out to eat they may bring you town water. 5
Q10-Amber: Good to know I forgot about that, thanks. So then what about weight gain and foods?
Mara: Well obesity is an epidemic in this country so obviously something is going wrong. I am an EMT so I get calls and am always worried about who in the community is hurt or sick. 5
Q11-Amber: How interested you are in learning about preventive measures?
Mara: Well it is my job in a way to spread the knowledge about how to stay healthy. 5
Q12-Amber: How interested you are in learning more about sources of chemical in food?
Mara: Ya the only way I can avoid the problems is to know about them. 5
Q13-Amber: How interested you are in learning about labeling improvements?
Mara: Very if there was a class at the library I would go to it. 5
Amber: Good to know you are interested in that getting started.
Q14-Amber: How interested you are in learning about forms of negligence and potential industrial or governmental responsibility?
Mara: Ya the rats, cooks, and customers. 5
Q15-Amber: How interested you are in learning more about potential health impacts?
Mara: This is the same as the question about Preventive Measures, right?
Amber: Yes one is asking about concern and this is asking about interest.
Mara: I am concerned and interested. 5
Amber: Who usually shops for the family?
Mara: Myself at Winco for low price organics, at the co-op for produce and dairy, and local farms for eggs, veggies and honey.
Amber: What do you think you would change?
Mara: I would change up to a point what my family eats. I think you also have to just roll and live life to the fullest.
Amber: What food related behaviors have you changed over the past 10 years?
Mara: I have mid-level knowledge about what is for sale but we usually buy organic and or local. The higher costs are a problem and then when I enter the stores I can sense an anxiety rise in me and that just might be the mentality of buyer beware.
Amber: Any final comments or suggestions?
Mara: I love to garden but I am a terrible gardener.

Note: 2 (3) 2 (4s) 11 (5s) = 69/75 92 Advocacy Response Total
**Appendix C- Family Sustainable Survival School**

**Survival School**

For my purposes here, I define a survival school as a hands-on learning experience which has the aim of teaching the student to function and thrive in an environment which does not have the tools a student is accustomed to using. This could be a short-term extreme scenario where a student has nothing but a knife and the clothes on their back, lost in the wilderness, or it could be a long-term grid-down scenario in an urban environment. Survival schools have been a feature of United States society for 46 years, when the American Indian Movement (AIM) established two schools in Minnesota. “The leaders and members of today's AIM never fail to remember all of those who have traveled on before, having given their talent and their lives for the survival of the people.” They describe an informal survival school that has been part of tribal culture for over 500 years, but the establishment of a school for educating other cultures in the US began formally in 1972 ([http://aimovement.org/ggc/history.html](http://aimovement.org/ggc/history.html)) accessed March 11, 2018.
Figure A- American Indian Movement (AIM) established two survival schools in Minnesota (https://www.upress.umn.edu/book-division/books/survival-schools) accessed March 11, 2018.

There are many survival schools which seek to improve performance of the individual, i.e. National Outdoor Leadership School (NOLS) Course, Tom Brown Jr.’s Tracker School, Outward Bound etc. When I began researching survival schools for families there was only one, the Thomas Coyne Survival Schools LLC 2017 (https://www.californiasurvivaltraining.com/family-survival-course). A 2018 Google search reveals a half dozen that describe a guided camping experience with primarily basic skills like setting up a tent or starting a campfire. However, as a general rule,
survival schools do not have family centered programs as part of their regular course offerings. Not only does this leave a large portion of the potential population interested in survival skills un-serviced, it also ignores the family as the primary learning institution for most children and many adults (Falk and Dierking, 2002).

In regards to disaster preparedness, there are a few articles and preparedness blogs online which discuss “bugging out” with children (Richardson, Creekmore, accessed March 10, 2018) but most recommend “bugging in” (Tyrell, C. accessed March 10, 2018). There is very little discussion other than telling parents to have lots of extra diapers and formula on hand. This leaves those who like to travel vulnerable. For an unprepared family vacationing at the Oregon coast without proper gear or understanding of the earthquake and tsunami risks, their lives could be in danger. If they did manage to survive a disaster, but were trapped on the coast for an extended period of time, they might be seen as a liability rather than asset to aid workers, emergency personnel, and others due to their lack of skills.

**Goals and Philosophy**

To address this gap in educational opportunities for families, especially families living in or visiting rural places such as the Oregon coast which are both prone to natural disaster and remote from disaster recovery resources, I designed modules to aid in the development of families sustainable survival adaptive capacity.

The underlying framework of the program is that the relative calm the US has experienced over the past several decades is beginning to change. Storm clouds are gathering in the form of world-wide financial instability and a growing realization that the paradigm which has governed humanity the past few centuries is in the
Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

process of collapsing. Add to this the fact that our climate is now changing at a rate faster than ever before recorded, and so that which we thought we knew before might not be true in the future. I asked my grandfather while studying ecology in Maine, “What do you think about global warming?” He responded, “It’s not the warming, it’s the cooling afterward I am concerned with.” Change is creating a shift in consciousness which is driving many to seek a better way to survive through the unknown. In this new era we are entering, we have an opportunity to learn new ways of utilizing traditional ecological methods of adaptation. Our philosophy is that we should always be doing something to further our survival. Even if it’s not the best decision in absolute terms, it’s better to be making decisions and learning from mistakes, than being stagnant and failing to progress at all. In such a fashion, we can “devolve” in the company of our families, and can do so in an environment which is not only informative, but also enjoyable.

Throughout the program, we refer to Earth as Gaia, and believe Mother Earth is a self-regulating living organism as described by James Lovelock in Gaia Hypothesis. Many ecosystems have the capacity to re-establish healthy functioning systems through organisms evolving mechanisms of pollution digestion. Humans have not yet evolved to that point and so reducing our exposures to environmental toxins reduces our risk to epigenetic changes.

The program will consist of two week modules led by experienced survival instructors and aimed at family audiences who are both visitors to the coast (a popular tourist destination) or residents of the coast. As an interdisciplinary project, it combines concepts and methods from Education, Applied Anthropology, and Ocean,
Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

Earth, and Atmospheric Sciences (Geosciences), each of which I believe has a future contributing to the body of knowledge related to sustainable survival. This interdisciplinary approach recognizes the importance of similar approaches such as “whole-farm” or “whole-ranch” systems approaches (Matthewson, et al., 2010). Since the content of the Family Sustainable Survival School is interwoven through multiple disciplines, the project assists families in developing confidence in a wide range of abilities, skills, and concepts.

Distributed and collaborative learning such as that typical in family groups favors interdisciplinary teaching and multicultural studies. This allows an instructor to account for age variations, and supports multi-generation education as well. Additionally, the pursuit of "big picture" questions about the nature of reality such as those raised by families thinking seriously about survival and sustainability requires a more interdisciplinary perspective (Rankin, 2010).

We introduce our families as guests to this program under multiple umbrellas (program modules) one of which is traditional ecological knowledge. All meals at the school will be included in the cost of attendance, but are a community effort. This means that all attendees will participate in meal preparations. Food is from sources that do not contain harmful additives and incorporate wild and locally produced ingredients. Depending upon the skill level and interests of the guests, the program offers a wide variety of homesteading and sustainable survival skills.

- Form a bow and drill friction fire kit (fire with sticks)
- Produce primitive traps
- Produce cordage (string/rope) from wild plants.
- Learn to cook a meal without pots, pans, or utensils
• Learn to purify water in the field with primitive methods
• Construct survival shelters
• Practice common first aid measures to care for themselves and others
• Cover signaling concepts for rescue
• Survival gear, kits, and preparedness
• Gardening i.e. Hugelkultur
• Long-term food storage methods
• Preparation of fermented foods

This is just a list of a few of the types of instruction that is part of the modules available.

**Free-choice Learning**

Like other kinds of family-oriented, collaborative, problem or experience-based learning, the program as imagined and carried out is an example of free-choice learning, learning that happens as part of other leisure time activity. Participants have a great deal of choice and control over their learning processes, outcomes, and interests. There is a community continually preparing food, firewood, baskets and bows. Specifically, I drew on the large body of research on free-choice learning (FCL) as the style of collaborative learning that I wanted to support through the development of these modules (sessions/classes/topics). Through social, ecological, and scientific lens of a nutritional anthropologist this field-based program leads the families to more effective relationships within their communities. The family sustainable survival school (FSSS) uses risk analysis to identify exposures, resilience, and a family’s adaptive capacity within an FCL academic setting. Through this process families are guided toward areas they need to know. Success comes when
they can demonstrate that they are capable of doing it. This is a spatial assessment
and temporal assessment of risk and recovery. A newsletter called American Survivor
was started in the early 1970’s for families (http://americansurvivor.org/publications/)
accessed June 5, 2018. The members have conducted outings that trained on survival
skills. I don’t know if these activities continue still or not.

As the risk reduces, then the military method of “training the trainers”
solidifies the activism through their ability to teach others what they have learned at
the FSSS. This spreads the knowledge and experiences within their home
community. Guests/graduates of the program will be working toward the following
goals:

• Function through difficult situations
• Assume leadership or support roles as needed
• Live and travel within their environment, not just a single location
• Act with confidence and competence
• Respectful and effective interactions with others (verbal and non-verbal)
• Develop family, interpersonal, and community collaboration
• Understand their strengths, habits, and areas for growth
• Make informed, thoughtful, and quick decisions
• Connect with natural places
• Appreciate the importance of living simply
• Teach other families in a FCL setting

Science Education

The words “science education” once evoked images of a professor in a white coat
lecturing at a blackboard filled with equations or students in a lab conducting
“experiments” with beakers bubbling over Bunsen burners. Such limited views of
science education no longer hold true today, as science, technology, engineering, and mathematics (STEM) learning takes place in a wide variety of social dynamics and settings. Learning experiences might take the form of an observant walk on a family outing to a park. Activities that impart lessons about biology may be enjoyed at a summer camp or museum, or during a quiet evening at home watching Cosmos or other science television programs. These are just some of the experiences that constitute the expanding landscape of what is commonly called informal science education (ISE) in the United States (Sacco and Bell, 2014).

**Educational Outreach Plan**

The project participants/graduates will communicate the project goals, activities, and findings to other individuals and groups on site (specifically) to their local communities (generally). Educational outreach programs and events (festivals) will be part of the efforts to spread knowledge of sustainable survival. Examples include field days, workshops or conferences, and family development networking events. The use of social media platforms such as YouTube videos, blogs, Twitter, Facebook and other popular methods will also be explored.

The following outcomes, modified from the National Research Council (NRC) publication *People, Places, and Pursuits* and based on findings from review of almost 1,500 research and evaluation studies conducted over the last dozen years, were used to guide the development of curriculum modules:

1. Experience, excitement and motivation about phenomena.
2. Generate an understanding of concepts through explanations, arguments, and models.
3. Manipulate, test, explore, predict, question, and observe our biosphere.
4. Reflect a knowing through processes, concepts, and their understanding.
5. Use scientific language and tools in a group setting.
6. Develop an identity as a science learner and contributor of knowledge i.e. citizen science.

**Evaluation Development Component**

There is an increasing interest in facilitation among researchers, practitioners, and other stakeholders who are currently involved, or hope to become involved in ISE activities and projects (Sacco and Bell, 2014). According to Jensen and Lister, the main issue at hand was the use of a conceptual marker as an “indicator” of science learning (Jensen & Lister, 2016). Falk & Needham, (2011), described the primary motivation for determining when or if people are actually learning anything is still being developed methodologically. The single concept, “homeostasis”, could be used as a baseline or learning equivalent to start the prior knowledge assessment. Using an indicator-based impact measure (a 'marker') is not designed to limit self-report data, and assessing long-term learning or behavioral impacts. Measurements of learning outcomes grounded in established social scientific methodology to evaluate informal science learning impacts should also be used (Jensen & Lister, 2016).

Centers of science have highly variable free-choice learning approaches toward higher understanding, interests, curiosity, and identity when compared to communities [a social construct, not population or town based] without. The presence of healthy and active science centers, represent a vital investment for fostering and maintaining a scientifically and technologically informed, engaged, and literate public (Falk, et al., 2016).
“What we really teach, at any given time, is the consciousness of an era. (Rankin, 2010)”

**Preliminary Video Evaluation**

The program plan will involve families who are interested in signing up for classes. They will be able to select dates for morning and afternoon sessions online. For success, this program needs to have evaluation criteria. This will be used to determine families preexisting productivity levels i.e. prior knowledge, advocacy response scale (as described in the results). The checklist on the survival school’s website will be required prior to signing up for modules. A similar survey was used to determine which types of class sessions interest people. (Appendix A).

**Onsite Video Evaluation**

Once modules have been completed, an on-site post knowledge and experience assessment will be requested. This will be the second of the three point of comparison evaluation system.

**Follow-up Video Evaluation**

Guest ability to adapt and utilize the ideas, practices, or technologies (associated with the project) will be measured also in a follow-up survey 3 months after the sessions are completed. This will ask guests/students to describe changes in their production (e.g., new skills or practices they have retained, increased knowledge or awareness, changed attitudes or opinions, etc.). This is the third point of comparison, a follow-up measurement of change evaluates what has been retained or
how much changed in the family’s awareness, knowledge or function through knowledge and/or function.

Registration for Modules

For future work, the final qualitative data reported here and instruments developed (e.g., the survey and interview questions) served as a pilot survey to help formulate a preliminary evaluation for future registration in the available modules. The purpose will be to determine a baseline of prior knowledge and level of skills related to personal experiences. This will be used to develop a risk analysis of the exposures on which participating families should focus.

Assessment of Families Capabilities within each Module

The last stage in training will be resiliency. While simply developing the capacity to bounce back from crises and trauma is a worthwhile endeavor, there is a further goal: the progression of family skill level seeks to aid in the transition from resiliency to adaptive capacity. This becomes necessary when a support system within the environment changes, or is eliminated. More than being resilient, this is when a person is able to evolve with their environment.

Instructed Learning

Hands-on teaching will be in a group setting were many families may learn about different shelter types and how to set them up. Building fires using traditional techniques as well as with more modern tools (matches, lighters, flint) will be key practice. Your bug-out bag will be built of items common to your childrens’ but in many cases they will have different tools also. We will go through the types and
recommended quantities of supplies needed in your 72 hour bag. We will also cover how to restock when supplies get low and much more.

**Guided Learning**

On-site instruction will be conducted by a survival instructor takes a family to a selected site for 1, 2, or 3 overnights depending on interest, experience, and site location. The instructor is to take an active role in demonstrating the variety of tasks necessary to successfully create shelter, prepare food, etc. in primitive conditions. This type of instruction is most commonly offered in survival schools.

**Observed Learning**

This will be self-guided but with a silent addition to the family who observes the interactions of the family, choices being made, and outcomes that result. The instructor will be available in the event of a life-threatening emergency, but will remain strictly an observer otherwise. These observations and experiences will then be compiled and presented at the end of the outing to in a concept the military called an “After Action Review” (AAR) this is a discussion of 3 positives, 3 risks, and 3 suggestions for improvement.

**Self-guided Learning**

This process will occur similarly to observed learning, but in this case, the evaluators will be each other. Each family member will have chance to talk through thought during the AAR and cogenerative learning engagement process. This will help young adults develop their voice. Their changing points of view is expected to create tectonic shifts within the families and how they develop up the ARS.
**Trainer**

Those individuals or families who finish each area of interest within each module, with the capability level of “self-guided” will be certified to return as a trainer to practice the skills they learned with other families as an observer if this interests them. This is particularly important as it will serve to reinforce skills learned on course.

**Instructor**

These will be amazing leaders who as a family unit or individuals within the families, act as an example of how to be a sustainable survival guru. A qualified instructor will have not only theoretical knowledge, but years of hands-on experience applying the skills they are teaching. While youth will not necessarily be a barrier, instructors will more likely be individuals generally in their 30s or 40s.

**Family Sustainable Survival School Future Location**

The future site of this outdoor free-choice learning FSSS will be on a 32 acre land tract. This coastal ecosystem is within a temperate “rainforest” which is a perfect setting to learn responsiveness to a variety of environmental threats: whether conditions change quickly, earthquake and tsunami potential, even bear and elk frequent the land. The industrialized culture of our “civilization” could also be viewed as a threat when we are bombarded by radioactive frequencies from cell towers or wifi that we might not want to be exposed to.

The program seeks to promote educational outreach of graduates in their sphere of influence. Functioning with solution based activities in their local
communities to enhance sustainable survival locally. It will also involve the guests in citizen science research with scientific terminology and methods for graphing the findings based on previous samples. Specifically, the 104 slash-mounds at the future FSSS site enables them to help develop a new agroforestry technique that incorporates hugelkultur (using decaying logs to feed gardens). I have called this method mound cropping or deadwood culturing. There is routine sampling for moisture, temperature, vegetative growth within these mounds.

Research is part of the education efforts to create a comfort with scientific processes and sampling methods. The county zoning laws require that the basal area for trees within a timber conservation designation (TC) are maintained alongside these agroforestry practices. Tree growth monitoring and management is also part of the FCL sampling protocol.

**Boundary and Current Ecosystem Conditions**

The FSSS is being developed about 3 miles north of Yachats, Oregon (this is not the community the thesis research was done in), and about ½ mile from the Pacific Ocean. This is above the flood hazard area. The 32 acre tract of land is under Timber Conservation (T-C) zoning. About 15 acres were left covered in piles of slash from the clear-cut in 2013. The forest diversity was decimated with very little left behind as understory or saplings to regenerate the forest. The forest residue/CWD/slash, were piled into 104 piles and prepped for burning. Fifteen piles were ignited but the fire did not take over so the piles remain as an incomplete burn. Large sheets of black plastic attached to each pile as an igniter, broke down in the sun over
the past 3 years. This old plastic requires removal because “biodegradable” plastic does not return to a natural state in the environment. It only gets smaller and it accumulates in the soil, water, or animals that ingest it. Even though the slash-piles were not burned as required by the Oregon Department of Forestry (ODF) within 1 year for public lands or 2 years (private land ownership), the area was re-planted in 10 acres of Sitka spruce and 5 acres of Douglas-fir.

![Figure B](image-url) On the left is the future site of FSSS in 2005. Figure C- On the right is the future site of the FSSS post clear-cut in 2013. Both images are from the [Lincoln County Assessor’s Office](http://maps.co.lincoln.or.us/#) Lincoln County Assessor’s Office, accessed Dec. 2016)

There is a Riparian Buffer between 50 and 200 feet wide along an unnamed tributary to Vingie Creek. This stream is running between two sections of the clear-cut. On the north side, the clearing is just under 10 acres and on the south side, it is almost 5 acres.

**Climate Assessment**

High winds and heavy rainfall are typical of late fall, winter and early spring. Prevailing winds are from the south, though there are occasional high winds from the
Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

west. Temperatures rarely dip below freezing, so snow rarely falls. Season to season, the maritime climate generally keeps temperatures between 20° and 75°F (http://www.Docweather.com, 2004)

**Soil Assessment**

The soil characteristics of the site are mostly silty marine clay with a thick loam on top. It is generally well-drained, and areas which have puddled typically drain within a day after a storm. The site elevation ranges from 57-76 feet; a difference of 19 ft. The soil is acidic due to the softwood needles and wood fibers decomposing.
Figure 3D- (http://maps.co.lincoln.or.us/# Soil Survey of Lincoln County Area, Oregon. Sheet Number 47, accessed Dec. 2016)
Family Sustainable Survival and the Advocacy Response Scale based on Rural Perspectives of Additives and Chemical Exposures

**Elevation**

The higher points are on the east and west portions of the property with the lower elevations inside the boundary. The slope is gradual and, because of its close proximity to the ocean, the fog belt reaches the western side of the property and extends inward approximately 500 feet. Since this area is part of the Coastal Rainforest, trees and plants grow quickly.

**Fog Belt**

Fog occurrence along the California and Oregon coast was evaluated by Lindquist (1999) for the months of June to October 1996. Fog exhibits a strong diurnal cycle at all stations, with maximum occurrence in the early morning, and with some minimum occurrences in the late afternoon. When fog is present, surface temperatures and wind speeds are lower. At the northernmost stations, the surface wind direction shifts from northerly to southerly during fog events. These relationships are demonstrated using summer-long averages and case studies (Lindquist, 1999). In line with Lindquist’s findings, the Yachats research site the fog is present in the summer months during the mornings and then again for a couple hours around 3 PM.

**Vegetation**

Native trees include Red alder, Sitka spruce, Douglas fir, Western red cedar, Western hemlock, and Shore pine. The native understory plants include Chittum, Salal, Huckleberry, Oregon grape, and Native Blackberry. Several of the non-native invasive species are Tansy ragwort, Scots Broom and Himalayan Blackberry.
Wetlands

An unnamed tributary of Vingie Creek runs through the case study research location and divides the two largest clear-cuts by a riparian buffer.

Figure E- Wetland Delineation([http://maps.co.lincoln.or.us/#](http://maps.co.lincoln.or.us/#)) Lincoln County, Oregon. Accessed March 2016

**Developing the Family Sustainable Survival School Curriculum**

Initially in 2017, I proposed that my thesis would focus on the development of a family oriented outdoor primitive skills and disaster response school. The primary focal area would be on earthquake and tsunami preparedness for families through free-choice learning methods. This is why some of the content of this thesis are in past tense and other areas that have not yet been fully developed are in future tense.
The FSSS seeks to promote educational outreach of graduates (families) in their sphere of influence. Functioning with solution based activities in their local communities to enhance sustainable survival locally.

**Agroforestry Demonstration Plots**

There are 5 widely recognized agroforestry techniques: Riparian buffer, Windbreaks, Food forest, Alley cropping, and Silviculture. The instruction location contains a developing 6th technique called Mound Cropping. Traditional ecological knowledge technique of Hugelkultur is being scientifically tested for incorporation into agroforestry as a new method of land management. This Mound Cropping or Deadwood Culturing is based on my Masters research project in Natural Resource Management. “Slash-pile Biomass Estimations and Carbon Cycling in the Coastal Temperate Rainforest of the Pacific Northwest” ([http://ir.library.oregonstate.edu/concern/graduate_projects/gx41mn92n](http://ir.library.oregonstate.edu/concern/graduate_projects/gx41mn92n) 2016) copyright 12/7/2016 Amber Winterbourne

This module will involve guests in citizen science research with scientific terminology and methods for graphing the findings based on previous samples. Specifically, the 104 slash-mounds at the future FSSS site enables them to help develop a new agroforestry technique that incorporates hugelkultur (using decaying logs to feed gardens). I have called this method mound cropping or deadwood culturing. There is routine sampling for moisture, temperature, vegetative growth within these mounds. Research is part of the education efforts to create a comfort with scientific processes and sampling methods. The county zoning laws require that the basal area for trees within a timber conservation designation (TC) are maintained
alongside these agroforestry practices. Tree growth monitoring and management is also part of the FCL sampling protocol.

**Earthquake and Tsunami Preparedness**

This mock disaster response is a module that demonstrates lessons learned. When families feel they are ready for final performance based evaluation, a simulation with noise and motion thrusts them into an adrenaline situation.

Areas of Interest: Bug out bag preparation, Bug out location movement, Survival Psychology, Confronting your environment, Remote extraction response, and Night land navigation.

**Sustainability Training**

This applies to the growth of the larger tribe, community and ecosystem that enfolds humans within its strength rather than resources from which to extract raw materials. Our time has come to become interconnected parts of a whole. We can be healed through Affinity, Realty and Communication (ARC). As we increase these three concepts, the triangle’s walls become stronger.

Areas of Interest: Food processing, wine & beer brewing, gardening, animal husbandry, harvesting, long term shelter construction, hunter safety course, trapping, erosion control, and blacksmithing.

**Technology Enhanced Readiness**

Areas of Interest: Night-vision hide and seek, GPS trail design with ArcGIS mapping, Drone obstacle course(s), using a drone to: view landscapes, map potential
routes and create 3D images. An element of fear will be introduced as a mock electromagnetic pulse (EMP) causes loss of power. In a safe setting this will test families reaction time, resilience, and ability to make informed decisions in times of stress. This is one of the final stages toward adaptive capacity where families are functioning as a whole cohesive unit.

**Ecological Interaction**

The concept is called MEST work. Changing Matter using Energy in a Space and across Time. As people perform MEST activities, they feel productive, and emotionally and physically stable (Hubbard, L. 1979). Families that identify and develop greater understanding of the systems that support them and how to interact within those networks, become more capable individuals in life.

Areas of Interest: Basket making, gathering techniques, plant identification, hide preservation, Native American culture and Mother Earth/Gaian Philosophy.

**Wilderness Training**

Areas of Interest: Fire building, temporary shelter construction, land navigation, hazard analysis (terrain, cold, heat), water purification, first aid, sanitation, After Action Reviews (AAR) and hunting/fishing for food. These are all family activities that help with team building. If a family learns how to function together they can determine what each individual can do to help the performance of the group, harmoniously.
Free-choice Learning

Although this is the method used in every curriculum, the techniques are provided for those interested in homeschooling or beginning a local survival school (threat and region specific) based on these concepts.

Areas of Interest: Field Technical Guides (with a choose your own path option), Publications, brochures, fact sheets, surveys, program announcements (that guide students into various learning outcomes), Visual Learning materials (videos from onsite lessons, photos, posters, slideshows), and Web-based resources (links, previous student comments, research into self-learning).

Sustainable Survival Education

Many educational grants are available, (e.g., from National Sustainable Agriculture Research and Education (www.sare.org)) that organizations can request for reaching out to communities. There are many opportunities outside of formal K-12 and undergraduate classroom settings for doing and learning STEM education. Learning is a continuous and cumulative process, primarily driven by individual needs and interests. The challenge is in connecting those needs and interests to the landscape. The Center for Advancement of Informal Science Education (CAISE) has been building an infrastructure for field documentation on projects, impacts, and research based programs.

Infants

Rowe et al. (2016) suggests that one way to eliminate socioeconomic status achievement gaps in children's early language and literacy skills may be to focus on
parents' knowledge of child development. Research has found that participation in newborn pre-literacy programs positively impacted parenting behaviors and attitudes (Letourneau et al., 2015). Pre-literacy includes such skills as oral language, the awareness of sounds, knowledge of the alphabet and an understanding of common print concepts. Motivation to read and self-regulation are also considered pre-literacy skills (Neuman, 2004).

**Youth**

The developmental “ecological perspective” on youth and adult programs (Y-AP) refers to a group of youth and adults working together to make decisions or take action on important issues in their program, organization, or community (Zeldin & Petrokubi, 2008). Communities (in the context of social groups, not necessarily formal towns) that support teen voices allow them to contribute in decision making. This helps them develop leadership skills, and increase the likelihood of success in socially stressful situations. Relationships grow as children age, with gradual increases in opportunities and responsibilities. This multi-age context provides integrated opportunities for operational management and performance based benefits (Akiva and Petrokubi, 2016). Currently, youth participation in typically “adult-only” activities is relatively uncommon and self-reported by 19% of youth and 20% of adults (Akiva et al., 2014).
Appendix D- Family Sustainable Survival School Lesson Plan I

Is the Class Prepared: Clothing is your most basic form of shelter. Evaluate as a whole the clothing situation of the group. Are they appropriately dressed for this session? Would they be comfortable if forced to remain outside for an extended period of time? Check footwear, rain gear, insulation materials, and hats/hoods. Hats can conserve up to 70% of your total body heat output. Are the majority wearing sneakers, cotton jeans (skin tight), and cotton T-shirts or sweatshirts?

Materials: Survival pack containing many of the following items: Flint and steel for spark, large plastic bag, candy bar, compass, map and compass, newspaper, hat, pocket knife, whistle, flashlight, insect repellent, water bottle, watch, metal can, reflecting device, first aid kit, bandana, steel wool, and a tarp.

Objective: For the participants to understand the four steps to deal with emergencies, and to be able to prioritize the four needs for survival. Participants should realize that being resourceful and improvising will help any emergency response be more effective. Finally we want students to realize that when going on hikes with their families or friends certain precautions should be taken to deal with unexpected emergency situations.

Procedure: Have group form a circle. Explain that with the ever-increasing luxuries and conveniences at work and at home, many people are unprepared for their trips in the out-of-doors. Life threatening situations can occur at any time. Please do not feel compelled to conduct all the activities described in this lesson.

Learning Styles: Based on Free-choice learning they may choose to participate in some more than others. Through cogenerative learning ask everyone a
question about what they bring to the class that may help their group? Everyone participates in some way, even holding an item up. At the end of the course ask the class what went well and what could be changed to enhance the experience.

First Activity: Ask the class - What is the worst reaction you could have to an emergency?

Answer - PANIC! It then follows that one of the most important things we can teach is a tool for avoiding panic. We do this by using the S.T.O.P. cards. Place the cards, in order, on the ground, then lead a discussion to help the class understand these four steps.

S = Slow down. This gives you some time. Time for the sense of panic to pass, and Time to… Think! How long you need to slow down depends on your situation. For example, you can take more time to think if you are lost than if your house is on fire.

T = Think. Consider the factors affecting your situation, such as time of day, weather, injuries, etc. If lost study the map for landmarks. When did you last know where you were? Are your footprints visible? Can you hear sounds of traffic? You can often find your way back if you take time to think. If you can’t determine your way back, stay where you are!

O = Observe. What things are available to you that may be useful (resources) to help with the situation? What do you have in your pockets or pack? What useful items can you find or make from the natural materials surrounding you? You are trying to make yourself as comfortable as possible and also as visible as possible to rescuers.
P = Plan. To act appropriately use critical thinking skills to assess and then respond to threats before you over or under react. Your plan should consider how to best use your resources and energy. If you have followed the STOP sequence your plan will be the best available to you and therefore you probably should stick with this plan.

Gain control. Your mind is a tool, which when in control can be used constructively, versus destructively when panicking. The S.T.O.P. exercise is important because it helps reduce panic. This is critical in emergency situations. It has been said by survival experts that survival is 80% mental (keeping a positive mental attitude through survival phycology), 10% skill (knowledge), and 10% equipment (specialized resources).

Second Activity: Ask the students to name the four needs we have as humans (which are the same needs as all other animals). As they identify the needs, place the corresponding card on the ground in front of the group. Then ask the class to assign a time card to the appropriate need card. A general rule of thumb is, you can survive for approximately:

- 3 minutes without air,
- 3 hours without shelter (in average weather ~ 50 degrees, realizing that clothing is shelter)
- 3 days without water, and
- 3 weeks without food.

This exercise is important because it identifies and prioritizes our needs, which is something that is essential in emergency situations.
Third Activity: Take the bandana from the daypack and have a student come up with one use for it. Then have the first student pass it to another student who gives a different use for it. Continue until all students have had a chance to participate. Having each student state their name prior to their idea of how they would use the bandana helps teachers and the class learn each others’ names. Each student must provide a unique use for the bandana. As it becomes more difficult, remind the group to remember the four needs, they can then pick one need and develop a use for the bandana to meet that need.

Some uses for the bandana are; bundle nuts or berries, warm hat, shade hat, wipe sweat from brow, tie hair back, signaling, hot pot holder, trail marker, cover mouth and nose to filter smoke, help with shelter building, and many first aid uses-including arm sling, bandage, tourniquet, support wrap, women’s pad, tourniquet, and so much more!

Explain that maintaining and conserving your energy and the energy of any resources you already have is an important capability. The important concept behind this activity is improvisation - Making the best use of your resources in emergency. This is an important skill when dealing with emergencies. Begin the hike away from camp. A few words of caution for the students; watch where you place your feet-ankle twists, loose rocks, and slippery logs. No one should go out of sight of the group.

Fourth Activity: Explain to the group that we will be in a simulated survival exercise for this part of the class. Lay the contents (see materials above) of daypack on top of the tarp with the group surrounding the tarp. Have the group choose 8-10
items. The items they chose should represent those items the group feels are most important or most useful. You might also ask the students to rate them from 1-5 with 1 being the most important item. The group should be able to give the reasons for the top 5 selections. Review with the class those items selected as well as those resources not selected. All items in the pack are useful in some way.

The group can take as much time to discuss the items as you wish. The following are some possible uses for the items in the survival pack. Items in RED are probably better choices than those items printed in BLACK for our students, although all are useful.

- **Tarp** - Shelter. **Probably top choice**
- **Metal can** - Boil water, cook food, collect or carry things
- **First aid kit** – Important to be prepared
- **Hat** – Extra clothing – hypothermia, cooler temp. at night
- **Flashlight** – signaling (three flashes)
- **Flint & Steel/Lighter** - a fire needs spark, air & fuel
- **Whistle** - signaling – 3 whistles for help
- **Pocket knife** - versatile, helpful with shelters, fire, food
- **Garbage bags** – Shelter, poncho
- **Steel Wool** – One of the few things to make fire from a spark
- **Newspaper** – Fuel for fire
- **Reflecting device** – Signaling, reflect sunlight
- **Map & compass** – Knowledge needed
- **Bandana** – versatile, signal, rope, trail marker
Snack – Extra food - people need food

Metal Water bottle – people need water

Watch – Determine direction, & time

**Fifth Activity:**

**Scenario:** Imagine our group was in a helicopter that crashed in the mountains of the Oregon Coast. The pilots did not survive the crash. Your assignment is to keep everyone in your group alive. Before the helicopter explodes the group only has enough time to get themselves and the 8-10 items out of it.

- Ask the group if this crash really did happen what would they do first?
- Check for injuries! Secure the scene and move away from crash!

Provide first aid to a person with a deep cut on an arm caused by the crash. Did the group pick the first aid kit? Does anyone know any first aid procedures? Have them talk you through what their actions would be.

**Correct procedure:** Calm victim, sit them down. To stop bleeding apply clean dressing (in first aid kit or bandana). Apply pressure directly to the wound, and elevate the area. Also apply pressure to the pressure point to slow bleeding to the injured arm. Apply bandage and continue to calm victim.

The brachial artery and pressure point is located along the upper arm bone on the inside of the arm (arm pit side) midway between the elbow and the shoulder. To check for effectiveness of the pressure point, find normal pulse rate, then apply pressure to the pressure point and recheck pulse. If you are correct with your pressure point the pulse will be reduced.
**Sixth Activity:** The wind is picking up, temperature is dropping and dark clouds are gathering. What should your group begin to do?

**Build shelters.** If they are building a tarp shelter they will need to work as one team, if you want them to build debris shelters then they could work in one, two or three groups. They may use any of the materials chosen in the beginning of the session.

For debris shelters the groups should not use any living plants, move buried rocks, which may cause harm to you while sleeping. Be respectful of the environment if at all possible.

* **Leaders information:** To be shared with students following their attempt to construct shelters.

**Size:** Should be just big enough to shelter the builders. If it’s too large, your body heat warming the shelter will be less effective.

Sturdy: Able to stand up to wind, rain, and snow. Use a tree, log or rock as a foundation or structural support.

**Wind:** Door should open opposite the direction of wind and be as windproof as possible.

**Rain/Snow:** Waterproof. Sloping roof tends to shed water better.

Insulation: Must hold in the warm air. Dead tree leaves work great. Piled up to three feet thick.

Always consider whether the amount of energy you will save by being protected from the elements will be greater than the amount of energy needed to build the shelter.
* TAKE DOWN AND SCATTER ALL MATERIALS USED FOR SHELTER BUILDING! *

**Seventh Activity**: Cotton is a very comfortable fabric which when wet is very slow to dry out. What dries your clothes when you’re wearing them? Your body heat of course. This robs you of vast amounts of energy. It is critical to remain dry, both from perspiration and from rain/snow. When you are wet, you lose energy up to 250 times faster than when you are dry.

**Discuss Hypothermia.** Hypothermia is a lowering of the core body temperature below 98.6 F. The body is using more energy than it is producing. The body is unable to warm itself. Often occurs at temperatures well above freezing and is compounded by dampness and wind. Symptoms include shivering, slurred speech, lack of coordination, irritability, and mental confusion. First Aid for Hypothermia is to remove wet clothing and replace with dry clothing. Give warm sugared fluids to a conscious alert victim. Move victim into a warm place.

**Optional**: Secretly assign one student with hypothermia. The group should identify the problem and verbally give effective first aid.

**Eighth Activity**: Finding Direction. There are many ways to identify the basic directions north, south, east or west even without a compass. There are natural indicators such as:

A) The growth rings on cut tree stumps tend to be widest on the south side.

B) The color and texture of tree bark may reveal north and south. Northern exposure tends to be smoother with a more solid color due to punishment from the wind and
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rain/snow. The south side is often lighter and rougher as a result of more exposure to direct sunlight.

C) Tree branches tend to grow larger and thicker on the south side.

D) Spiders tend to weave their webs on the south side of trees or shrubs.

E) Moss grows best on the north side of trees, out of direct sunlight in moist, cooler conditions.

There also is a simple way of finding direction with an ordinary watch face. Point the hour hand at the sun. Then divide the angle formed by the hour hand and the 12 on your watch in half, this points to the south.

Have the students try to use the above indicators to identify directions. Verify with a compass. Don’t forget that remaining in one place is generally the best thing to do! Do not try to find your way out when you feel you are lost. If you know you can travel downhill to find a river or can hear traffic then you have terrain features to guide your critical thinking plan. Stay where you are if you are not thinking clearly due to the crash, dehydration, or hunger.

**Ninth Activity:** Make a fire / Purify water.

**FOR THIS EXERCISE, BUILD FIRE ONLY IN AN AUTHORIZED FIRE CIRCLE**

Ask the group - Why is building a fire important? A fire is important because; it gives warmth and light, acts as a signal, can purify water, dry clothing, and boasts morale.

Allow the group do this at first. They should be organized. Collect wood and separate into three piles-tinder (toothpick size -smallest twigs & shavings), kindling
(pencil size), and fuel wood (up to thumb size only). Don't begin fire until all wood has been collected. Allow _?_ matches, or flint/steel and steel wool.

**Discuss water purification.**

Water running over rocks and small water falls are safe to drink from—True/False?

FALSE. Boiling water for 5 minutes is the safest method to kill germs and bacteria. Boiling will not remove chemical pollutants, and can actually concentrate them if water is boiled too long.

In an emergency situation, you should begin building the fire two to three hours before dark and gather two to three times as much wood as you think you need. With the fire burning strong, place water (from bottle) into the metal can and place in fire. You can add the needles from hemlock or pine trees to make a vitamin rich tea. Contains about 7 times more vitamin C than orange juice.

At the end of this activity, extinguish the fire by pouring a bucket (provided) of water over the fire area and stir the ashes with a stick. Continue this until you are safely able to place your hand on the fire site, and then in the ashes. If the ashes are cold the fire is completely extinguished.

IS YOUR FIRE COMPLETELY OUT? THE FIRE RING SHOULD BE COLD!

**Tenth Activity:** Revisit the concepts learned around the fire as they enjoy the warmth and prepare to camp in their survival shelters. Remember to conduct cogenerative learning after this lesson is complete.
Discussion - What do you do when lost? S.T.O.P. People will be looking for you. STAY TOGETHER. This will help to calm everyone and you will be easier to find. You can also use the resources of the group by sharing knowledge, skills and ideas. What do you have to signal with? Did the group choose a flashlight, reflector or whistle from the pack? These take no energy to use and can travel a long distance in good conditions. Stay alert to car horns, whistles and voices. When you hear something call out in a loud voice, whistle or signal in some other way.

You could also walk downhill until you find a stream or trail. Then walk downhill or in one direction on the trail. This will lead to a road in a short distance. Follow the road in one direction until you find help.

If you don’t have markers or terrain that you know, STAY WHERE YOU ARE. Search teams will be looking for you. You will be found sooner if you stay put. Make yourself obvious by building a fire, tie colorful bandana in a visible place or place makers in an open area such as a field. A grouping of three is a universal distress signal. Make three piles of rocks or three fires or blowing a whistle three times signals that you need help.

**References and Supporting Documents for this unit:**

Montclair University
(https://www.montclair.edu/media/montclairedu/csam/njsoc/sessions/survival.pdf)
Accessed June 11, 2018


New York.
Appendix E- Perceived Additive and Chemical Exposures

Lower income rural residents tend to rely on hunting and fishing as well as animal husbandry and gardening to provide food for their families. Sometimes law enforcement turns a blind eye to those in the community that resort to poaching when their families are in need (Sherman, 2009 pg. 66). Sherman also discusses room and board aka caretaking as a way to generate income by sharing extra food. Illegal subsistence work (harvesting food without permits) is more common when financial or social pressures reduce a person’s ability to utilize normal means of producing food (Tsing, 2015). These could be considered as traditional methods of subsistence or survival. When natural resource management regulates these sources, families consume less locally available foods and buy less nutrient rich foods, ie. Ramen Noodles. Since poaching and room and board are more regulated now than they used to be, people have to buy food that they would have previously poached. Their food may be sparse and lacking nutrients but worse it contains dangerous ingredients. Families conceptualize food as dangerous in either scenario because it is difficult for rural families to find sources that are socially and economically acceptable.

More specifically how the food additives affect our everyday health and reproduction is what is of concern when research on the internet of unpronounceable ingredients reveals increased cases of cancer or asthma associated with their consumption. Food additives which have had very little research done on them, yet have been ingredients for centuries, are called generally recognized as safe (GRAS). Those additives that have been tested and legally determined unsafe (such as ones
that cause cancer in humans or animals) are supposed to be removed from our foods (Congressional Act, 1960).

   Chemical exposures in our general environment (such as herbicides) is known by more families than what is being added to the food we consume. I should note that most chemical exposures are not directly associated with hazardous spills or toxic waste. There are trace amounts of chemicals present on almost everything we touch. It is generally understood that we are exposed to a variety of harmful chemicals during our day to day activities. What is difficult to conceptualize is the sheer volume of the exposure, and the fact that a large portion of that comes from the foods we eat. Food policy mandates tracking industrial methods of food production, processing, distribution and purchase. Using Local Organic Food (LOF) benefits rural communities. This money is retained in the local economy and facilitates the development of small farming business. The price of locally produced food is sometimes more expensive. However, the social benefits of LOF usually contains the fewest number of additives and also advocates for local food culture (Tikkanen, 2014). When families have the choice, they prefer LOF which they feel safe consuming.

**Families Primary Perceived Concerns: Integrated findings**

The majority of families interviewed mention the following food or water additives as a primary concern.

**Artificial Sweeteners**

The Center for Science in the Public Interest (CSPI) reports that aspartame can cause neurological problems, such as hallucinations, and restless leg syndrome.
The consumption of artificial sweeteners, over extended periods, they report also increases cancer risks. Acesulfame-K is an artificial sweetener that was formerly only allowed in sugar-free products (https://cspinet.org/) accessed May 21, 2017.

**Monosodium glutamate (MSG)**

Monosodium glutamate (MSG) is a flavor-enhancer and preservative that is added to many packaged and canned foods. However, it is not always listed as MSG. It is often disguised on the label as "natural flavoring" or "glutamic acid."

Additionally, the process by which vegetable and animal proteins are “hydrolyzed” or “autolyzed” creates glutamic acid, which attaches itself to free sodium molecules, thus becoming MSG. This “created” MSG does not have to be listed on the label as it is not a specific additive (Van Nostrand, 1983). According to a report on MSG by the Arizona Center for Advanced Medicine, MSG promotes the growth, and spread, of cancer cells within the body, and has been linked to "sudden cardiac death." In a study in the February-March, 2008 issue of the "Journal of Autoimmunity," researchers state that MSG is linked with obesity and inflammation within the body, particularly the liver. To reduce public concern, but continue using MSG, California has now listed it as a fungicide and sprays it on some crops prior to harvest, thus not requiring it to be listed on ingredients labels (Federal Register, 1998).

**Fluoride**

Harvard conducted a study in 2012, which linked lower IQ in children with higher use of fluoride (Anna, et al., 2012). There were 57 studies done during 2015-2016, 50 of which established an even stronger connection than before. The
paragraph below is the introduction from the website that has summaries and links to all the studies. The journal’s articles were not only by researchers who are in the business of brain studies, but also a number of dentistry organizations.

“As of September 2016, a total of 57 studies have investigated the relationship between fluoride and human intelligence, and over 40 studies have investigated the relationship fluoride and learning/memory in animals. Of these investigations, 50 of the 57 human studies have found that elevated fluoride exposure is associated with reduced IQ, while 45 animal studies have found that fluoride exposure impairs the learning and/or memory capacity of animals. The human studies, which are based on IQ examinations of over 12,000 children, provided compelling evidence that fluoride exposure during the early years of life can damage a child’s developing brain.” (http://fluoridealert.org/studies/brain01) accessed on May 23, 2017.

The primary reason some families use fluoride is to reduce cavities. The impairment develops as fluoride is ingested and it binds to inhibit brain function at the hypothalamus (Chan, 1983). Although the target rural community express an concern with fluoride, the majority of US cities add it to the public drinking water. (https://www.cdc.gov/fluoridation/statistics/index.htm) accessed March 10, 2018

In the target community, 90% of those surveyed have a perception that their community water supplies did not contain fluoride. Historically, prison systems in Nazi Germany and the former Soviet Union added large amounts of Sodium Fluoride to their drinking water. The goal was to render the inmates “docile and stupid.” The practice was ended in 1990, and Russian President Vladimir Putin “has banned fluoride from Russia, stating that the “toxic poison” that was “force fed to prisoners
of war during Soviet times” should not “under any circumstances, now or in the future, be considered for use on the people of the Russian Federation.”


Families interviewed questioned what the true reasons are for adding fluoride to our public drinking water. In small communities one person's knowledge, concern and interest is spread to the rest and this is a primary means of information transfer to control who is part of the tribe or an outsider.

Bisphenol A (BPA)

Thermal paper on most sales receipts and many plastics are treated with an endocrine disrupting chemical called BPA’s. In laboratory tests on mammals other than humans, toxins known as obesogens “disrupt normal development and balance of lipid metabolism” Specifically the register receipts with BPA’s have caused infertility and obesogenic changes through gene expressions (Grün 2007).

The chemicals used to manufacture plastics tend to migrate into food during processing and packaging (Rudel et al., 2011). It has been proven that this changes our response mechanisms, (e.g. hunger, satiation or other triggers) so the brain fails to get the message of satiation. In other words, we continue to feel hungry even after eating an adequate amount (Grün, 2007). Register receipts printed on thermal paper often have endocrine disrupting BPA’s which have been linked to infertility. The science of epigenetics has discovered that these chemicals can even change the expression of a person’s genes, affecting that of a woman’s eggs, and if she is pregnant even the eggs of her unborn female fetuses (Grun, 2007). The female fetuses then develop with the eggs that that have been genetically changed by BPA’s
that have been linked with infertility. Changes to the blood of the mother can affect three generations of gene expressions. “The U.S. Food and Drug Administration used to say that BPA was safe. But in 2010 the agency altered its position...But based on other evidence -- largely from animal studies -- the FDA expressed ‘some concern’ about the potential effects of BPA on the brain, behavior, and prostate glands in fetuses, infants, and young children.” (https://www.webmd.com/children/bpa#1) accessed March 11, 2018. Most of the completed research is on laboratory mammals, since there are not many humans that are willing to risk generational gene changes that express phenology differently through such life altering characteristics.

Some families expressed concerns that BPA’s have not been removed from many products allowed to come in contact with food or mouths like the hard plastic on pacifiers. The families blame the industrial elite that would allow the “side effects” to continue as part of a grand eugenics experiment.

Fortunately, thermal paper contaminated with BPA’s is no longer used at many local stores and public systems near the target community. Do you know how many in your community still use thermal paper with BPA’s?