Critical Media Health Literacy in Burma/Myanmar:
A Case Study of High School Students

by

Christine M. Beer
B.A., Boston College, 2005
M.Ed., Boston College, 2007

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

in the Department of Curriculum and Instruction

© Christine M. Beer, 2014
University of Victoria

All rights reserved. This dissertation may not be reproduced in whole or in part, by photocopy or other means, without the permission of the author.

Supervisory Committee

Critical Media Health Literacy in Burma/Myanmar:
A Case Study of High School Students

by

Christine M. Beer
B.A., Boston College, 2005
M.Ed., Boston College, 2007

Supervisory Committee

Dr. Deborah Begoray, Department of Curriculum and Instruction, University of Victoria
Supervisor

Dr. James Nahachewsky, Department of Curriculum and Instruction, University of Victoria
Departmental Member

Dr. Joan Wharf Higgins, School of Exercise Science, Physical and Health Education, University of Victoria
Outside Member

Supervisory Committee

Dr. Deborah Begoray, Department of Curriculum and Instruction, University of Victoria
Supervisor

Dr. James Nahachewsky, Department of Curriculum and Instruction, University of Victoria
Departmental Member

Dr. Joan Wharf Higgins, School of Exercise Science, Physical and Health Education, University of Victoria
Outside Member

Abstract

Current health literacy research is reconceptualizing health literacy and social learning. Theorists are situating health literacy in the contexts of digital media and critical sociocultural theories (e.g., Wharf Higgins & Begoray, 2012), based on the proposition that literacy is a complex and layered human involvement in socio-political contexts (e.g., Gee, 2000; Lankshear & Knobel, 2011; Levin-Zamir, Lemish, & Gofin, 2011; Nahachewsky & Ward, 2007). Research with adolescents in various contexts around the world has indicated that an empowerment approach to literacy education is effective for health literacy interventions (King, 2007).

This study responds to the need to design and facilitate high school curriculum to empower adolescents to develop health literacy, and the study responds to the research participants' choice of mental health as the topic of an interdisciplinary curriculum. Situated in the traditions of qualitative case study research methods, and positioned to engage the online social media contexts in which adolescents participate, this study explored how Critical Media Health Literacy (Wharf Higgins & Begoray, 2012) is expressed by a particular group of Burmese adolescents.

The data reveal how the theoretical concept of Critical Media Health Literacy, when operationalized as a unit of analysis for the case study and a theoretical framework for the data collection methods of the case study, can be facilitated in a way that engages the research participants in specific skills' practice and in cognitive, emotional reflection on their own health and literacies capacities. Data collection methods involved face-to-face interviews, online social media blogs, web page designs, and face-to-face group discussions.

The analysis found *optimism, anxiety,* and *taking action* were major themes shaping the conditions for the adolescents' development of health literacy, showing health literacy to be integral with media literacy and critical capacities, and indicating the concept of Critical Media Health Literacy has relevance for curriculum that engages adolescents who are situated in Burma/Myanmar to take action to improve the health of themselves and others in their social contexts.

The findings indicate that this population and the applicability of Critical Media Health Literacy for high school curriculum in this setting requires further exploration to understand why social determinants of health are perceived as inevitable, how social pressures related to health are negotiated, and how digital structures influence the criticality of literacies of adolescents in Burma/Myanmar. Theoretical frameworks for further research are proposed for an exploration of the systems of relations in socio-political and economic contexts that influence the development and enactment of Critical Media Health Literacy and health promoting performances of adolescents in Burma/Myanmar.

Table of Contents

Supervisory Committee ii
Abstract iii
Table of Contents v
List of Tables viii
List of Figures ix
Acknowledgements x
Dedication xi
Chapter 1: Introduction 1
1.1 Context of Research Problem 1
1.2 Rationale 22
1.3 Research Purpose 27
1.4 Research Question 29
1.5 The Study's Significance 30
1.6 Chapter Summary and Chapter 2 Preview 32
Chapter 2: Literature Review 33
2.1 Introduction 33
2.2 Theoretical Orientations 34
2.2.1 Critical Literacy and New Literacies 34
2.2.2 Critical Media Health Literacy 43
2.2.3 Summary 48
2.3 Adolescence 49
2.3.1 Physiological Transitions 49
2.3.2 Sociocultural Transitions 51
2.3.3 Health Concerns 52
2.3.4 Motivation and Autonomy 53
2.3.5 Health Behaviours and Health Literacy 58
2.3.6 Media Literacy and Health Outcomes 59
2.3.7 Blurred Boundaries of Health 61
2.3.8 Adolescent Voices 62
2.3.9 Summary 64
2.4 Critical, Media, and Health Literacies Curriculum 64
2.4.1 Multiple Views and Multiple Meanings 65

2.4.2 Taking Control of Learning ... 67
2.4.3 Negotiating Meanings Across Contexts ... 68
2.4.4 The Potential of Social Learning ... 69
2.4.5 Summary ... 71
2.5 Health, Literacies, and Adolescents in Burma/Myanmar ... 72
2.5.1 Summary ... 75
2.6 Chapter Summary and Chapter 3 Preview ... 76
Chapter 3: Research Methodology ... 78
3.1 Introduction ... 78
3.2 Rationale for Research Methodology ... 78
3.2.1 Qualitative Research Methodology ... 79
3.3 Research Design ... 86
3.3.1 Research Population and Setting ... 89
3.3.2 Recruitment Procedures ... 100
3.2.3 Data Collection Procedures ... 104
3.3.3 Data Analysis Procedures ... 112
3.4 Validity ... 114
3.4.1 Model of Interpretive Validity ... 114
3.4.2 Limitations of the Research Design ... 117
3.5 Chapter Summary and Chapter 4 Preview ... 119
Chapter 4: Findings ... 120
4.1 Introduction ... 120
4.2 Results: Codes, Categories and Themes ... 122
4.2.1 Theme 1: Optimism ... 125
4.2.2 Theme 2: Anxiety ... 133
4.2.3 Theme 3: Taking Action ... 137
4.3 Chapter Summary and Chapter 5 Preview ... 145
Chapter 5: Discussion ... 146
5.1 Introduction ... 146
5.2 Discussion of the Findings ... 146
5.2.1 Central Research Question: How is CMHL expressed by high school students situated in Burma/Myanmar? ... 148
5.3 Limitations of the Study ... 158
5.4 Implications ... 159

5.4.1 Implications for Research 159
5.4.2 Implications for Pedagogy 166
5.5 Summary 168
References 170
Appendix A – Ethics Certificate 185
Appendix B – Principal Letter and Project Overview 186
Appendix C – School Staff Letter and Consent Form 189
Appendix D - Student Letter and Consent Form, English 192
Appendix E - Student Letter and Consent Form, Burmese 195
Appendix F – Unit Plan and Web Page Design Rubric 200

List of Tables

Table 1. CMHL in Burma/Myanmar. 88

Table 2. Data Collection Methods by Source. 105

Table 3. Alignment of questions with constructs of health literacy. 108

Table 4. Unit of Analysis. 114

Table 5. Index of Data Collection Events and Data Sources. 121

List of Figures

Figure 1. Defining attributes of CMHL (Wharf Higgins & Begoray, 2012). 46

Figure 2. Research design process... 88

Figure 3. An afternoon in a Yangon neighborhood... 90

Figure 4. Driving to high school... 94

Figure 5. Cars and neighborhoods of students. 95

Figure 6. Driving for entertainment... 96

Figure 7. Customary home. 97

Figure 8. A free health clinic.. 99

Figure 9. Thematic map.. 125

Figure 10. Web page design (WP-S16)... 127

Figure 11. Web page design (WP-S1)... 128

Figure 12. Web page design (WP-S6)... 132

Figure 13. Web page design (WP-S13)... 135

Figure 14. Web page design (WP-S10)... 142

Figure 15. Web page design (WP-S3)... 142

Figure 16. CMHL and questions for exploration. 163

Figure 17. A conceptual framework for future research based on CMHL.................... 166

Acknowledgements

I am grateful for the guidance and challenges of Dr. Deborah Begoray, Dr. Joan Wharf Higgins, and Dr. James Nahachewsky. Their questions, suggestions, and supportive insights were essential to my research and writing process. As a result, their contributions made my experience into a transformative developmental process, a process in which I was challenged to consider alternate perspectives, my own position in the research process, and the potential value of this case study for the research literature. In particular, I feel a deep gratitude for the in-depth and essential critiques of Dr. Deborah Begoray, through which I was challenged to rethink and reform my writing processes and analyses of this case study. I also wish to thank Robert D. Farrell SJ and James A. Woods SJ of Boston College for encouraging me to find my own path and voice through education and service to others, Dr. David Blades of the University of Victoria for challenging me to expand my views of power and ethics, Dr. Roy Graham of the University of the Victoria for opening my eyes to how writing literacies are diverse methods of thought and expression, and the high school students and teachers in Yangon who generously engaged with me in this exploration of health, critical literacies, and online media.

Dedication

For Patrick and Anthony Beer

Chapter 1: Introduction

what a gusty wind

on my heart

a homeless crow is cawing (Maung Thein Zaw, 2013, p. 167)

1.1 Context of Research Problem

This chapter is divided into five sections. The first section describes the broad context of the research problem, followed by section presenting the research rationale, purpose, guiding question, and significance. The city of Yangon, in the country of Myanmar, is still known and referred to by some as Rangoon, Burma. The names, like the multitude of meanings that the names invoke, are like water charged with electricity. Meanings are influenced by human conditions of living, attitudes based on beliefs and values, personal perspectives, and the streams of motivations and activities that drive those influences over time. People make and convey meanings with symbols, and through those acts of literacy people adjust to social situations and, as expressed by the excerpt from *The Heat Bearer* in the opening to this chapter, look forward to empowering themselves to generate new social situations that respond the democratic needs of a unique society.

When I first arrived, the city of Yangon appeared to me as a tumbling river of people, bicycles, vehicles, wild dogs, the phosphorescent coral colours of blossoming trees, and the shifting sky dense with homeless, calling crows. During all but the months

of December and January, the moonscape roads and marshy landscapes are under the rule of the tense and unpredictable monsoons. Rushing rains raise water to frail human waists and thrust the contents of sewers into the dusty streets. Storms from the sky and the coastal waters along the Bay of Bengal stream over the country, yet most people lack access to clean drinking water.

Health is fragile in Yangon, where the basic necessities of water, food, shelter, and safety are elusive for the majority of people living there. The roadsides are scattered with people using improvised tools to repair cars, trucks and bicycles. Those who lie on the ground, hammering at the belly of engines, are kept company by the crows, dogs, children, and adults who squat for long hours on the spit stained curbs and on tiny plastic stools near tables and huts where broth, rice noodles, tea, betel are traded. Those few who drive in newly imported high-end cars often honk their car horns impatiently while pushing along the roadside and through the shoals of people who drag their bare or sandaled feet through the heavy, acidic air and flooded street sides on their long journeys to and from work or school. Here people survive and persist in the swelling garbage heaps, tenuous wood and plastic shelters, strangled vegetable gardens, damp apartment houses, and crumbling colonial concrete sewers, sidewalks, and roadways.

That which is visible is weighted by the heavy and caustic sounds of the city and the stale guttural breath of the betel stained streets and walkways. But then there is the natural serenity of Yangon's Inya Lake. In the early evenings, the lake often appears as dark glass. The surface is midnight blue and glistens with the pink and orange streaks of sunset. Towering palm trees sift the air with a gentle drumbeat. But during weeks when automobile size boxes arrive on canvas shrouded military trucks, the serenity of the lake

in evening is punctuated by sporadic gun fire from the jungle of military properties that press against the shores of Inya Lake.

Contrasts abound. Many of the people who walk and ride their bicycles amongst the discordant traffic talk on cell phones using the government censored telecommunication services. Those in the high-end cars often have smart phones, laptops, and the luxury of a broader range of telecommunication services provided in conjunction with their relationships to the military dictatorships which have held the brave new world of Burma in their palms and minds since 1962 (British Broadcasting Company [BBC], 2012).

The country was isolated from the international community by the ruling military juntas from 1962 to 2011, until in 2011 when the military began directing a transition to representative government. The population of 53 million people (WHO, 2011) is one of the poorest in Asia due in large part to an under-developed economy and corruption, as well as "gross human rights abuses, including the forcible relocation of civilians and the widespread use of forced labour, including children" (BBC, 2012). Gross annual income per capita is US $ 1,950, and the Myanmar government's total expenditure on health per capita is US $ 28. Median age of the population is 28 years, and about 25% of people are under the age of 15 years. Over four million people live in the city of Yangon.

When I arrived in Yangon, I noticed that many of the people I met on the streets and in schools refer to the city as 'Yangon' and the country as 'Myanmar,' rather than use the colonial names of 'Rangoon' and 'Burma.' Yet, most people refer to their language as 'Burmese.' In spoken Burmese, 'Yangon' and 'Rangoon' sound the same because, as I was told by a Burmese friend, an 'r' is pronounced as 'y' and, 'o' and 'oo'

represent the same sound. The name change is mostly one of spelling and visual appearance, suggesting a break from the times when the colonial interests of the Dutch, French and British first marked the name on maps and operated governments from this city which now overflows with an estimated four million people.

Yet a large proportion of the country's population lives beyond the city of Yangon and surrounding south-central regions of the country. Many of the outlying areas are not easily accessible to foreigners. Those who live in the frontiers which border Bangladesh, India, China, Laos, and Thailand belong to various communities who are not counted as ethnically Burmese by the Burmese in the south-central regions. United at the local community level but actively excluded from the official government, these social groups fund their opposition to the government in large part by trading in opium as well as refined morphine and heroine (Boucaud & Boucaud, 1992). On these frontiers, people speak languages distinctly different from Burmese. There are more than one hundred of these distinct languages used by the frontier communities, languages which in some instances have written forms with unique alphabets and naming logic.

The cultural logic of naming often communicates messages about who holds power. The name of the country was shifted from Burma to Myanmar by the current dictatorship in 2006 (Larkin, 2010). The word maintains the link to the dominance of the largest ethnic group who are known as 'Myanma' or 'Bamar' and those words are conceptually very similar to the word 'Burmese' (BBC, 2012). Most Burmese people with whom I spoke accepted the new name of the country, but my observations are limited to conversations with people from Yangon who are represented ethnically in the new name. Possibly, the acceptance of the new country name is an indication that the

change it is not seen as something that is worth the risk of criticizing. Power is also evident in the act of naming. At the same time that the capital was moved from its postcolonial shore in the south of the Yangon region to a dry bank in the center of the country, the current dictatorship changed the name of ‘Rangoon’ to ‘Yangon’ and ‘Burma’ to ‘Myanmar.’

I found it is mostly in the words of humanitarian leaders such as Aung San Suu Kyi and people who knew life before dictatorship who hold fast to the name ‘Burma.’ Aung San Suu Kyi uses the name ‘Burma’ in a way that relates that name to the idea of a democratic citizenry inclusive of the range of cultural ethnicities in the diverse country.

Aung San Suu Kyi’s election in April 2012 to a representational seat in the dictatorship’s emerging parliamentary-style government has provided a platform from which she and her party are allowed to speak of the shared responsibilities and duties of citizenship. But the young people of Burma need help to develop critical thinking, literacy skills and strategies in order to prepare to participate as adults in social justice activities motivated by citizenship. According to my observations and experiences, young people in Yangon do not study or practice civics as part of their school curriculum, likely because there have been few publically visible examples of citizenship or opportunities to participate in government processes for socially beneficial purposes since around 1962 (BBC, 2012).

Democracies rely on literacies and communications for negotiating social issues and electing representatives of the whole population to the country’s government. The challenge of literacies and communications was evident in my work with a young woman who translated documents for me. She was born in Yangon and attended five years of

university in London, yet she still struggled to find words or phrases in Burmese which hold meanings and suggest concepts similar to the English words 'critical' and 'critique,' words that point to a questioning process. The word 'analyze' caused a problem as well. Finally, with the words, 'think about,' 'discuss,' 'decide,' the translator and I worked back and forth to make connections between Burmese and English concepts. But there were still conceptual gaps between the words and the conceptual meanings that the words symbolized.

During my first week in Burma/Myanmar[1], in July 2011, I visited the Shwedagon Buddhist monument in Yangon and met many people who were eager to talk about the names and meanings of the symbols there. Shwedagon means "Golden Dagon" in reference to the city of Dagon established centuries before on this site by the Mon people from central Asia (Suu Kyi, 1995).

The Shwedagon monument is a complex of both massive and tiny Buddhist symbols glazed in golden paint and gold metal plating. Electricity, while scarce for most of the people living in Yangon, ignites the white and flashing neon lights which wind around the monumental statues, temples and stupa. Standing barefooted on the boiling hot tile walkways under the fierce sun of morning is like floating at the bottom of a pool of mesmerizing reflections. Golden Buddha statues, almost all alike in form, watch the barefooted patrons and worshippers gaze into the pagodas, tiny temples of the Burmese zodiac deities, and up to the ninety meter summit of the golden Shwedagon stupa. The stupa is a sealed tomb said to contain a relic of the historical Buddha, and its summit is

[1] I use Burma/Myanmar to recognize the contested usage of Burma versus Myanmar.

currently a reef for offerings of gems and golden jewelry from the individuals who are in power or connected to the power of this country's military dictatorship.

I held an umbrella against the glare of the stupa's golden façade and the vast sun while I made my way to a shaded side of one of the multitude of pagodas. There I met a man called Lin Ba Nyan[2], who walked up to me and asked where I came from. He introduced himself and explained his names are references to a parent and grandparent, but the names are not surnames or family names in the Western sense. Lin immediately began talking with me of his pride in having been a teacher before retirement. He made a point to let me know he had been educated in the public schools before the waves of dictatorships began in 1962. Lin was fluent in Burmese and English and his expressive face darkened when he spoke of his disappointment about what he saw as the decline of public education in Burma/Myanmar, particularly the declining English and Burmese literacy of young people. His direct gaze into my eyes contrasted with the avoidance of eye contact, perhaps a gesture of politeness, that I had noticed with many people I had encountered in Yangon. Students need to learn "how to think" Lin lamented. He appeared to have a need to tell me these things, although I had not asked questions about them. Perhaps he wanted me to think about these things, and I did.

Lin had taught high school science and he practiced Burmese, Theravada Buddhism, yet he was eager to look up my Burmese horoscope. The Shwedagon monument includes ritual statues for worship of the Burmese zodiac which is structured by the days of the week. Lin looked up my birth date and time in a tiny book that he carried in a pocket with his cell phone. He pointed me in the direction of the statue of an

---

[2] All personal names, with the exception of Aung San Suu Kyi and cited authors, have been changed to pseudonyms in order to protect confidentiality and anonymity.

elephant deity, which is based historically on religious Hindu tradition and represents the day of the week on which I was born, there being eight days in the Burmese tradition because Wednesday is split into two twelve hour pieces. Lin said the tusked elephant deity rules my destiny and requires my veneration. He explained that I should pour a certain number of cups of water, in a certain order, over the tusked elephant statue and then over the Buddha statue and guardian statue arranged behind the elephant. The number of cups was determined by my age and Lin's estimation of my need for luck. I hoped his estimation of my need for luck was generous as I left Lin standing at the Buddhist pagoda to hurry to the elephant statue before the eruption of the looming monsoon. A little hammered tin cup was waiting for me, and I used it to take water from a metal pan to pour cupfuls over the head of the elephant while wondering how to make sense of these contrasting symbols.

The monsoons continued relentlessly. About a week after the simmering hot day of the visit to the Shwedagon my husband and I hired a taxi to take us through the flooded roadways to a market downtown. Most of the taxis we had embarked in were small two-door cars at least twenty years old which had all been creatively repaired in order for the drivers to earn a living. When we climbed into the back of the car on this damp day we sank into the soggy, musty foam of the seat. As usual, there were no seat belts so we could shift ourselves to find a position where we could avoid at least some of the rainwater that was streaming in from the roof and open windows of the car. For our feet, there was no hope of shelter. This taxi provided a close-up view of the rough and muddy road through rusty holes in the thin floor. After a week of relying on taxis, we had already been in one taxi with fold up lawn chairs as seats, so this one felt safe in contrast.

We introduced ourselves to the driver, and after exchanging names we commented on the elaborate ring he was wearing on his right hand. Mynt told us in English that it was his birthday. He had spent the early morning at the Shwedagon monument with his wife, and he was now working for the rest of the day as he did every day. His wife had given him a gold ring inlaid with five gems, rubies and emeralds. The gems related to his zodiac birth date and those of his wife and his three daughters.

We continued to try to make meaning together using English words. Mynt was interested to hear about our work as teachers and our home in Canada. He invited us to meet his wife, Khin, who was an English teacher in the government's public schools. We accepted and he called his wife with his cell phone to let her know we were on our way.

Mynt drove about ten minutes from the main road into a neighborhood of apartment buildings and street vendors. The rough roads were jarring, but Mynt did not seem to notice. He turned off the engine each time he stopped at an intersection to conserve his ration of fuel, and he wiped the incessantly foggy windshield as he careened down the roadways. At last, he parked his car and led us through the garbage-strewn walkway and the ever present wild dogs to the corridor of a five-floor apartment building. There was no lighting in the narrow steep corridor apart from the gray light that seeped in with the rain from small slits in the wall at the landing of each floor. We stepped carefully up the stairs, avoiding the pools of spat betel and rotting waste while Mynt walked casually to the third floor.

When we arrived at Mynt's door, he called Khin again using his cell phone. She opened the inner wooden door and the iron barred outer door to let us inside. We removed our shoes, and Khin invited us to a take seat in the small damp room. The seat

seemed to be made of a truck bench and was next to a large Buddha altar overflowing with neon lights. Mynt picked up a stack of printed photos and showed us images of his daughters and also of his recent monastery stay. The photos showed him wearing a robe the colour of saffron while dutifully completing a one-month mediation which, he said, is expected of men when, and if, they reach an age between fifty and sixty. The final photo presented to us was of Aung San Suu Kyi. Khin and Mynt beamed when they presented this photo, which they treated as if it was one of their family photos. Khin, who spoke very little English, managed to express to us that she was hopeful for a democratic election.

In April 2012, eight months after the conversation with Khin and Mynt, Khin's hope for a democratic style election became reality. For those who elected the National League for Democracy to a seat in government, and Aung San Suu Kyi as the representative in that seat, the election represents the desire to influence the living conditions and cultural values of Burma/Myanmar, and to achieve a socially just society ("Burmese hungry for justice," 2011). But in the school where I worked few people talked about how living conditions should or could be improved.

In Yangon, the public schools and residences where most Burmese people live are without clean water or electricity. Each morning the sky was thick with currents of smoke, heat and smell of the burning wood and garbage used for cooking. In the Burmese owned, private international school where I worked, water for drinking, washing and toilets still came directly from the sooty rain water that was collected on the roof of the school and electricity for lights was inconsistently generated from a rumbling oil-burning engine. There was no heated water in the school for washing hands or cleaning dishes,

and the lack of adequate sanitation in the surrounding neighborhood also created challenges for physical health. Within the first weeks of school we had our first outbreak of hand, foot and mouth disease, affecting over half of the students and staff and lasting for several weeks. Later in the year, a student and staff member suffered from typhoid.

Private school students, like the rest of the population in Yangon, lack local health services. I saw few public health clinics. In one free public health clinic, operated and paid for by a Burmese doctor, Dr. Pathi, and his family, I observed within three hours forty people who were suffering from conditions such as measles, malnutrition, respiratory problems, and nervous system disorders. Malnutrition, appearing in other countries as lack of quantity of food, is often also caused by lack of quality of food in Burma/Myanmar. Malnutrition and obesity are affected by the quadrupling in the 1990's of prices for chicken, vegetables, eggs, and peanut oil. Much of the food that is consumed, even by the private school students I observed, is now made primarily with rice, palm oils and monosodium glutamate (Aung San Suu Kyi, 1995). Doctor Pathi emphasized that many of these conditions are preventable through social organization. He said, "We are working grassroots. We are happy to serve people in these conditions."

In the free clinic operated by Doctor Pathi, he and his staff of two young medical students provide clinical services from early morning to early afternoon every day, recording each client and the reason for the clinic visit in their database on a personal computer. The doctor regularly meets with about two hundred people daily before spending the remainder of each day working in a for-profit government clinic, one of about three in Yangon, accessed by government officials and foreigners. At the doctor's free public clinic, at least forty people were in line at any one time. There was no time to

change the sheet on the examination table or to wash hands between clients. There was no water, no toilet or sink in the clinic. There was a small amount of electricity for a few light bulbs and the doctor's personal computer.

People waited in line, jamming into the open doorway and gazing into the dusty and damp concrete treatment room. Many of their faces were painted with yellow-grey paste, *thanaka*, as a matter of decorative custom and to protect their skin from the sun, light skin apparently being of more value than browner tones for some people in Burmese society. The paste used on the face, and sometimes on the arms and legs, was made from a plant root. The paste dried into a pale grey mask that glowed in the dimly lit room of the clinic. At one point three men from the National League for Democracy came inside to visit very quietly with the doctor for a few minutes. The doctor explained there was much to do in these three months before the election in April. This act of citizenship was very guarded and cautiously carried out.

Two of the clients at the free clinic on the morning I visited were adolescents who had found information on the Internet, and heard from their friends, about pharmaceutical drugs for losing weight. They believed the drugs would help them stay awake for long periods of time to study for their school examinations. The products are easily available in large markets in Yangon, but the prices are too high for the majority of people who live with their families on the equivalent of five Canadian dollars per week. They asked Doctor Pathi for the products because he provides drugs at very little or no cost to his clients. The doctor did not provide the products and instead gave the young clients injections of B vitamins and recommendations to drink tea. He said the B vitamins were

lacking in the diet of many Burmese people, evidenced by the common sight of dry white foam around the mouth.

None of the clients whom I observed asked any questions of the doctor, and his clinical assistants asked no questions. Doctor Pathi said, “The government education blocks our thinking power. Young people are just parroting. Public school teachers charge money for tutoring after school because they do not teach anything in the schools. Doctors trained today at Burma’s universities cannot even do cardiopulmonary resuscitation properly.” I observed similar conditions with the Burmese students who participated in this study, particularly the conditions of passivity in health performance due in part to what appeared as lack of critical literacy capacity.

Social and economic circumstances of people living in Yangon, such as income level, education level, and relationships with friends and family have impacts on health, in addition to the more readily assumed social and economic factors of access and use of health care services. Income levels are low for the majority of the approximately 60 million people who live in Burma/Myanmar, and only foreigners and a small percentage of Burmese have access to wealth, which in the context of Burma begins at what would be considered a middle class lifestyle in the context of professionals and business owners in Canada or the US. Wealth in Yangon is relative to a middle or higher class of income which affords buying adequate food, shelter, transportation, and safety.

Roadside fruit and vegetable stands contrast to the Western-style grocery stores which often have attendant security staff, some who scan incoming customers with metal detectors. Access to the Western-style grocery stores, however, does not necessarily mean access to more nutritious or more hygienically handled food than can be purchased

at the roadside tea stands and food markets. At the private school where my research took place, most of the food vendors sold the same food as could be purchased on the streets in the surrounding neighbourhood, but the students at the school were wealthy enough to eat much more and much more frequently than people with lower incomes.

Housing and transportation, while a challenge to build or acquire due to lack of construction materials and skills or local purchasing agents, is available to the wealthy in Burma/Myanmar. Houses and cars of the wealthy appear to be acquired through government channels, and the luxury houses and cars are usually protected by barbed wire fences which surround the properties. Houses are built in gated communities by low paid and often low skilled workers who live onsite during the multi-year building process. The houses are similar in appearance and scale to those which exist in suburbs of Canada or the US but with their own oil burning electricity generators and drinking water systems, due to the lack of adequate public utility and water infrastructure in Burma/Myanmar. For those who cannot build this type of housing, there are government owned and patrolled apartment buildings or unused land on which people build shelter from wood and reused materials such as plastic, cardboard, or metal scraps. For those without the social relationships to buy imported cars or pay for taxis, there is a train, left from the colonial era, that traverses the outskirts of Yangon, buses that travel around the city, and there is the option of a bicycle if one can afford a bicycle or build one from found parts. All of the public transportation options are extremely crowded and unreliable in timing and mechanics; therefore the patrons have little control over their personal or work schedules. Examples of housing and cars are further described in chapter 3.

As income levels affect daily living conditions in Burma, income also affects access and quality of education. A Burmese teacher who teaches science in a private middle class school said she had received a scholarship from Germany to attend the University of Yangon. She is part of a family that holds jobs in government and therefore was raised in social situation with a high income level in Yangon. But as a Burmese teacher she was paid, as were other Burmese teachers, 25% of what foreign teachers are paid at the same school. The foreigners in Yangon pay inflated Western-scale prices for housing and currency exchange is extorted; however, the pay inequity causes tension at the school. The higher income of her family was a factor in the Burmese access to education, but income did not shelter her from the adverse climate conditions in Yangon. After cyclone Nargis in 2008, she and her extended family gathered pieces of their home's roof from the devastated landscape and repaired their house for themselves. Their economic situation afforded them access to a home on land which was above the flooded lower lying areas of Yangon, but their perseverance afforded them the actions of gathering together to repair their home and prepare for a return to their roles in teaching and civil service. As a school librarian said to me, "We are born into this world suffering, we suffer while we are here, and we leave suffering. We must just go on each day." There appears to be an attitude of accepting life's situations and dealing with them as they are.

Income level did not appear to change the general attitude about the status of gender roles. As an outsider to the culture I kept in mind the lessons delivered by Burmese school administration and teaching staff during my orientation at the school where I conducted my study. With visible pride and reverence, a female Burmese teacher explained to the foreign teachers that "males have more value than females." She

illustrated her point by describing that if her son was lying on the floor in her house playing video games or watching television and she needed to walk past him, she could not step over him but must instead walk around him or wait to move past him until there was space enough that she would not be "above him."

The views portrayed in the orientation class caused me to take opportunities to observe the behaviours of families. In one family that I observed outside their plastic and corrugated metal hut on the edge of the street near the school where my case study took place, the male child picked up a tree branch from the street and was permitted to beat a female child in his family, but the female child was not permitted by her on-looking father or mother to retaliate. In a similar display of gender values, one of the Burmese families attending parent teacher conferences at the school where I worked visited the teachers of their son but not the teachers of their daughter, who also attended the school. The daughter walked around the school with her parents to her brother's classrooms, standing always behind the family. Later, I observed the daughter's very laconic and seemingly depressed behaviour in a classroom, and only through consistent opportunities to take control and speak out in an equitable context did she begin to participate in face-to-face dialogue and personal expressions in texts, as will be presented in chapter 4. While I observed these gender differences as a general pattern, I also observed a few exceptions of more equitable gender relations, which are also represented in chapter 4.

The generally accepted idea that higher income and social status are linked to better health is at first glance evident in Yangon, perhaps due in part to the factors discussed above. Higher income levels appear to generally relate to healthier physicality, safer shelter, and either access to education or access to higher quality education than is

available in public schools. In terms of healthcare, Burmese and foreigners working for non-governmental agencies and businesses have access to a few local private clinics and one government hospital in Yangon for which services are paid in cash, but the general lack of medically-trained healthcare services is a burden for even the wealthy in Burma. The difference is that those with economic wealth have access to resources outside of Yangon, and a common option is to visit the consumer-oriented hospitals such as are available in Thailand. Given the gaps in social determinants of health for the people in Burma/Myanmar, it would be expected that there are relative gaps in their quality of health.

At the private school in Yangon where I worked and researched the media and health literacy of high school students, most students are ethnically Burmese or Chinese and part of a new middle class. My professional experience in the design of Internet software for education and public health systems has given me opportunities to work people in many social contexts and from many cultural backgrounds situated in North America or Britain. Living and working for an entire academic year in Burma/Myanmar immersed me in wave after wave of colliding experiences. Although I have been preparing myself to be a literacy educator and researcher through my education and practica over the past seven years, and the private school in Yangon where I worked and researched offers courses in English, I am positioned as an outsider in this study. The majority of students of the school are Burmese or Burmese-Chinese, with a small percentage of students from a variety of countries such as Korea, Thailand, Singapore, and Pakistan. Burmese is spoken almost exclusively by Burmese staff and by the students when they are not in taking part in a class.

Most parents are employed by the government or operate businesses in conjunction with the government, and as a result, the parents are monetarily affluent. The students have access to the housing, smart phones, laptops, Internet services, and vast array of entertainment provided by their parents' material wealth. Entertainment was described mainly in terms of Facebook and digital and online video formats. It is not uncommon for students to have multiple Facebook accounts. One student told me she has two accounts with different photos and names, none of which are her own. She approached the messages, from Facebook wall postings and emails, as a kind of play. Facebook is also popular for access to online video games, in which roles are played in artificial battlefield and other social settings. Elementary, middle school, and high school students have their own physical technology components in their homes, such as Xbox consoles, for battlefield and race car games, and the students have digital video equipment and software for creating and editing movies, which in some examples I saw were about themselves and their friends acting as characters from popular culture or acting as what they call 'shooters' while playing war. Amongst the array of digital and online entertainment, one of the most popular formats for male students appears to be massively multiplayer online role-playing games, especially World of Warcraft.

The students' families can afford to buy access to recreational and health services; however, there are few recreation services available in Yangon and families appear to give little value to physical activity. The students' health services are provided by traditional Chinese practitioners and the few private clinics in Yangon, complemented by additional access to private Western style medical practitioners in Bangkok and

Singapore. Most of the students who attend the high school travel regularly outside of Burma/Myanmar.

The students arrived at the high school each morning in private cars, either in their own cars or in cars with drivers. The drivers usually carried their school bags and lunches into the school and held umbrellas to shelter them from the torrential rain or tanning sun. Most of the students buy snacks and lunch from the street vendors and vendors who sell rice with meat and vegetables, noodles, pizza, ice cream, and soft drinks in the high school's outdoor eating area.

All students have cell phones and many have smart phones and laptops which they use to access the Internet for entertainment and school projects. The school is known to be related through its trustees to the current government, and it uses the censored and often interrupted Internet services provided by the government telecommunication services company.

The students use the Internet and digital online media for accessing information and for sending and receiving communications. At the slightest opportunity in a face-to-face conversation, the high school students who participated in this study would search the Internet using a smart phone or personal computer to find information or show a text or image of some sort, in an effort to add meaning to the conversation. Similar to students in communities around the globe, the students read and sent messages via Facebook and text from their cell phones while on breaks from class and while carrying on face-to-face conversations. In Yangon, I observed high school students explore and exploit an ever-growing array of digital, online tools to communicate new and remade content.

The administration of the high school where this study was situated has a published mission which communicates the value of engaging students' cultural participation to literacies, media and health curriculum. The school's mission states that "critical thinking strategies across subjects,…the development of healthy lifestyles,…and the role of technology in student learning" are valued components of the curriculum ("About [the school][3]," 2011), yet I observed that the curriculum often failed to facilitate practices through which adolescents have opportunities to develop those capacities.

These personal anecdotes highlight a sample of challenges faced by young people living in Burma/Myanmar. Specifically, there is a contradiction which exists between the adolescents' situations and the actual curriculum of literacies, digital media, and health that is intended to help adolescents exert control over their health performance. These contradictions reveal a gap between the theory and practice of curriculum and the students' needs to develop critical capacities related to the various social contexts in which they participate, contexts that overlap with their school contexts.

There is a trend of research evidence showing adolescents around the globe increasingly use digital, Web-based media for communications (Keselman, Logan, Arnott Smith, Leroy, & Zeng-Treitler, 2008; Lupiáñez-Villanueva, Mayer, & Torrent, 2009; Marschollek, 2007; Perry & Weldon, 2005) which have direct and indirect influences on adolescents' beliefs, values, health performance (Alpay, Verhoef, Xie, Te'eni, & Zwetsloot-Schonket, 2009; Bergsma, 2004; Begoray, Cimon, & Wharf Higgins, 2010; Wharf Higgins & Begoray, 2012). This trend has a relationship to increased demands on adolescent literacy capacities. New literacy skills and strategies are required to adapt and

---

[3] The administration of the school where this case study took place declined my request to identify the school in publications.

make purposeful meaning from the digital media tools, the messages in the content, and the ways that content is presented (Zarcadoolas & Pleasant, 2009). Literacies are increasingly defined as ways of making meaning "in which written-linguistic modes of meaning are part and parcel of visual, audio, and spatial patterns of meaning…that more frequently cross cultural, community, and national boundaries" (Cope & Kalantzis, 2000, pp. 5-6). In contrast, there is a lack of research to show how educational curriculum supports or intends to support adolescents in developing literacies relevant to these contextual realities and health outcomes.

Freely available digital tools allow a person to create and send out content to specific groups of people based on common relationships or interests, and advertisers in turn utilize content created through social media to determine messaging for display and interaction with individuals via that same social media. For example, Facebook content is constructed or reconstructed from combinations of written texts, images, still and film photos, and sound to create meaning. Messages which are first sent to a group of friends are then available to be sent out through more channels when a receiver of a message chooses to Like, Recommend or Share through their network, and so on, transmitted throughout the never ending streams of messages. The messages are utilized by advertisers to determine what content and how to communicate it to individuals and groups through email or social media such as Facebook. As of October 2012, there are one billion people using Facebook regularly. Approximately 81% of those people live in places outside the United States and Canada, and more than half of the people who use Facebook send messages daily and on mobile phones (Facebook, 2012). An estimated one in a thousand people in Burma/Myanmar use Internet and mobile phones, and the use

of mobile and smart phone technology have quadrupled in the last four years (Budde Comm, 2013). As of 2011, Facebook and Gmail are respectively the first and second most popular websites in Burma/Myanmar (BBC, 2012).

Facebook is an example of only one of many digital online tools frequently used by the Burmese participants of this study. The students developed and practiced literacy skills and strategies using digital online tools which structure communications in particular ways. This presents an opportunity for educators to help students to learn strategies for using skills to achieve a particular purpose. In the course of the academic year, I observed the Burmese high school students interacting with the multitude of messages and channels of communications that have the potential to influence their health outcomes and the health outcomes of their communities.

1.2 Rationale

The intense increase and demands of digitally communicated content, and the combination of digital media with other contextual experience have caught the attention of literacy researchers and theorists. Much of the work that has built the foundation for new literacy theories is positioned from the philosophical perspective of *critical literacy*. Built upon the skills of reading, writing, speaking, and listening, critical literacy is defined and practiced as a way of thinking with language that can affect one's sense of *critical consciousness* for being, knowing, and acting in the social contexts which situate one's life experiences (Freire, 2000). Critical consciousness is conceptualized as a "necessity of using knowledge to address the challenges of public life" (Giroux, 2009, p. 670) and for taking responsibility for the meanings attached to one's life (de Beauvoir, 1989). Critical literacy theory has focused on the development of reading, writing,

speaking, and listening for the purpose of developing a new awareness of the self as an individual, looking critically at social situations and taking initiative to transform social situations that need to be improved or changed for the good of the individual and social groups. Lankshear and McLaren (1993) define critical literacy as "learning to read and write as a part of the process of becoming conscious of one's experience as historically constructed within specific power relations" a definition from which follows the goal, "to challenge power relationships which are assumed to be unequal" (p. 82). This critical stance is a starting point for responding to the challenge of addressing the new types of digital communication tools and texts which are integral to adolescents' social contexts.

The New London Group (Cope & Kalantzis, 2000) theorized *multiliteracies* as involving the many sensory modes available to an individual and the social contexts of ongoing communications that are increasingly mediated through the use of digital online tools. Literacy is a practice of working with the multiple meanings and meaning making processes of the individuals who participate in social contexts. This theory calls for the development of new literacy skills and strategies so individuals are prepared to purposefully take part in literacy acts within these new contextual situations. Lankshear and Knobel (2011) theorize *literacies* as situated in social contexts. Therefore, literacies are "socially recognized ways in which people generate, communicate, and negotiate meanings…through the medium of encoded texts" (p. 33). New literacy calls attention to the "'potential' conveyed by the text…that is engaged on through interaction with the text by its audience or recipients" (p. 41) often mediated by technology. This is relevant to the variety of digital textual possibilities and sources of texts available on the Internet (p. 41). The concept of *new literacies* represents "a new approach to thinking about

literacy as a social phenomenon" in contrast to "conventional literacies" by recognizing how digital tools mediate and make possible "the emergence of 'post-typographic' forms of text and text production [which are] more 'participatory', more 'distributed', [and] less 'published', less 'author-centric' than conventional literacies [due to] a different configuration of values" (Lankshear & Knobel, 2011, pp. 28-29). New literacies theory positions literacy as mediated practices to make meaning from literal message transmission, relational expressions with particular social groups or streams of discourse, debates of issues relevant to social contexts, and connections to personal beliefs and behaviours.

Educational researchers and theorists have reconceptualized literacy to involve critical literacy and new literacies in the context of media and health. Wharf Higgins and Begoray (2012) have designed the theoretical concept, *critical media health literacy (CMHL)*, to propose a model of how critical literacy skills and strategies integrate with media, consumer risk, and empowered citizenship to promote health as a valuable resource. The three-concept process model presents attributes of skill, empowerment, and engaged citizenship for exploring and understanding how students "critically interpret and use media as a means to engage in decision-making processes and dialogues; exert control over their health and everyday events; and make healthy changes for themselves and their communities" (p. 142). This calls for a transformative pedagogy in which educators work with students as participants in designing curriculum so that students' literacy practices involve their "life worlds" (Husserl, 1970, p. 126) and students explore how knowledge is acquired through their experiences. As a theoretical concept for curriculum, CMHL positions educators and students in processes to engage with personal

life worlds and with cultural and civic contexts in which individuals and communities can exert power to affect health outcomes.

Research in settings in Taiwan, Israel, Netherlands, and Canada shows that critical, media, and health literacy help adolescents affect their health status and outcomes (Levin-Zamir, Lemish, & Gofin, 2011; Li-Chun, 2010; Simovska, 2012; Wharf Higgins, Begoray, & MacDonald, 2009). This research also shows that curriculum is often neither designed nor facilitated to achieve this purpose.

Wharf Higgins, Begoray and MacDonald (2009) found that students often do not have support in contexts outside of school for taking control of their health, so the learning contexts of school in which students spend a large part of their lives provide a critical setting for helping to provide that support. These researchers found that "[a]lthough it was recognized that the school culture was important to students' ability to act on their health knowledge, the boundaries between the student, school and families became blurred, with each having ripple effects on the other" (p. 358). This evidence shows that curriculum needs to be facilitated in ways that includes the students' life worlds in literacy practices, considering the perspectives of the students and the research evidence that social contexts are interwoven through dialogical relationships.

While there is a growing body of research literature to describe the practices of literacies and literacies influence on health status and health outcomes in many countries around the globe, there is a lack of research to describe the media literacy or health literacy curriculum of high schools in Burma/Myanmar. In addition there is little research to describe the health outcomes or the relationship between literacies and health for Burmese adolescents. It is this gap that my research addresses.

Situating Burmese adolescents within the broader geographical area of Southeast Asia, several health issues are treated as priorities by the World Health Organization (WHO). Based on health care projects conducted in Southeast Asia, it is known that adolescents in that geographical area face significant health risks in the areas of malnutrition and obesity, sexual and reproductive health behaviours, mental health, and violence (WHO, 2008; WHO, 2011). A report supported by the Myanmar Ministry of Health indicates that most adolescents in Burma/Myanmar misunderstand the risks and prevention of HIV (WHO, 2012). This example shows the potential for content and communications to mislead or fail to help adolescents learn about health issues. Aid organizations develop programs to reduce health risks, yet there appears to be a lack of health promotion programming to educate adolescents about prevention and engage them in health promoting performances.

The Burmese adolescents who participated in this study face known health challenges. Considering the health challenges combined with adolescents' intensive and increasing use of digital media content and communications, there is a need to understand how health literacy and digital media relate to adolescents' capacity to address their health challenges in their various social contexts. Researchers focused on Burmese youth (e.g., James, 2005) warn that the educational context in Burma/Myanmar is not meeting the developmental needs of Burmese youth to develop personal and social capacities for active participation in public life. Health is a personal and social resource and the literacy practices which support health are key to active participation in public life. Wharf Higgins, Begoray and MacDonald (2009) argue, "without meaningful opportunities to learn how to be health literate, that is to access, understand, evaluate and communicate

health information, the importance of the contextual and more distal layers of influence may be muted" (p. 359). It is the intent of this study to research, describe, and begin to understand how CMHL is practiced by Burmese adolescents, situated in the layered and interwoven contexts of their lives.

1.3 Research Purpose

Learners are in positions of influence, and in a position to be influenced, when they interact with mass media, interactive multimedia, and interactive communications through literacy practices. Multiple modes, such as graphic images and photography, are appropriated and combined, created, presented, consumed, and reproduced through digital media (Pink, 2011). The experiences and functions of these modal and digital literacies have been conceptualized and shown through current research to be relevant in an individual's critical and active participation in social contexts (Cope & Kalantzis, 2000; Pink, 2011).

Previous research has shown that educational settings are a useful context for working with adolescents to practice the literacies relevant to mass media (Hobbs & Frost, 2003; Stack & Kelly, 2006) and to the critique of interactive multimedia and online communication practices (Nahachewsky & Ward, 2007), including critiques of how digital media may be seen as an influential *super peer* (Brown, Halpern & L'Engles, 2005) by adolescents, which suggests that the media is a powerful influencer of the adolescent "for information and norm setting" (p. 7). Literacies are tools for thinking and communication, and online media is a vehicle for many influences which require critical literacy in order to discern knowledge that serves or does not serve individuals and communities. But educational researchers have yet to uncover fully how curriculum can

be implemented, and how educators must be prepared, to engage these literacy practices in ways that help adolescents to improve their personal resources, such as health status, health performances, and health outcomes (Marks, 2012).

Adolescents are faced with the need to develop critical media literacy (Hobbs, 2004), and educators are faced with the opportunity “help students acquire the competencies of digital citizenship” (Hobbs, 2011, p. 126). Digital competencies involve personal attributes to address cyber bullying, privacy and identity preservation, respect for authorship, and skills in accessing and critically engaging with online information and communications, such as with advertising (Hobbs, 2011).

These capacities have a bearing on health status and outcomes. Research has shown that high school students’ health can be both compromised and promoted through interactions with mass media and digitally communicated messages (Levin-Zamir, Lemish, & Gofin, 2011). Health beliefs and behaviours are affected by media messages, and once established in adolescence, those beliefs and behaviours have been shown to form the basis of habits that influence health over time (Begoray, Cimon, & Wharf Higgins, 2010; Begoray, Wharf Higgins, & MacDonald, 2009; Bergsma, 2004).

Adolescents need the support of curriculum to develop critical, media, and health literacies in order to participate in an active and critical dialogue about the means of distribution, and meanings of messages that affect their state of health and their sense of empowerment in promoting their own health and the health of their communities. The concepts of critical, media, and health literacies are reconceptualized and enriched with dialogical processes in the theoretical concept of CMHL (Wharf Higgins & Begoray,

2012). Exploration of this concept holds the potential for theoretical importance and practical relevance for educational curriculum.

It is the purpose of this study to contribute to the professional literature by exploring how the theoretical concept of CMHL is expressed by Burmese high school students through engagement in an educational curriculum focused on personal and social health issues of importance to the students. This exploration is designed to: (a) help students develop literacies that in turn help them to improve their health outcomes and develop roles as active participants in society; and (b) seek ways of improving the relevance and effectiveness of literacies curriculum based on evolving theoretical frameworks.

1.4 Research Question

Given the known health issues of adolescents in Southeast Asia and the lack of research about how high school students in Burma/Myanmar develop capacities for CMHL, this study explored the central question: *How is CMHL expressed by high school students situated in Burma/Myanmar?* The question is based upon an epistemological belief that the multiple realities are known through meaning making processes based on the subjective behaviours and experiences of individuals in social contexts, and that those behaviours and experiences can be observed through empirical research methods (Denzin & Lincoln, 2005; Guest, Namey, & Mitchell, 2013; Miles & Huberman, 1994; Yin, 2009). The research question is examined through observations of high school students in Burma/Myanmar as they participate in curriculum situated in their immediate social contexts (Park, 2007; Porter, 2002).

1.5 The Study's Significance

This study contributes to education knowledge and practice. First, the research sheds light on the presence of CMHL in high school students who are situated in one school in Yangon, Burma/Myanmar and exploring a health issue of interest to them. The Burmese adolescent population faces known literacy and health challenges, but the Burmese adolescent is underrepresented in educational research literature. In the broader context, data about the presence of CMHL in adolescent populations around the world is underrepresented in the literature while there is a growing body of research to show adolescents and adults around the world are rapidly increasing their participation in digital communications and using the media content for addressing health issues that are relevant to their lives (Alpay et al., 2009; Begoray, Cimon, & Wharf Higgins, 2010; Zarcadoolas & Pleasant, 2009). Based on the findings of this research, the study I conducted in Burma/Myanmar provides a first-hand description of the contextual impacts, helping to explain how adolescents in that setting engage with digital communications and media content based on their health concerns. The research also presents potential themes for exploration in future studies with adolescent populations in Burma/Myanmar, in particular adolescent populations who are part of a growing middle class.

Second, this study describes how an emerging health literacy concept operated as a guide for questions explored through curriculum and through a variety of dialogue formats, both face-to-face and online. Researchers recognize the misalignment between conceptual frameworks of critical, media, and health literacies and applied and qualitative research studies, health curriculum, and health communications (Alvermann, 2008;

Pleasant, McKinney & Rickard, 2011; Wharf Higgins & Begoray, 2012). Furthermore, there is a growing body of evidence showing conceptual frameworks for critical, media, and health literacy research studies and educational curriculum must take into account the cultural and civic participation of individuals in order to help individuals affect health outcomes (Wharf Higgins & Begoray, 2012; Zarcadoolas & Pleasant, 2009).

Third, the findings of this study may also impact educational policy in health education more generally beyond Burma/Myanmar as the design of curriculum integrates health with other subjects, and the continued development of theoretical frameworks bring emerging concepts into educational practice in ways that engage the *life worlds* (Habermas, 1987), or subjective experiences of students. Findings from this study have the potential to help literacy and health educators orient policy around a theoretical framework. If educational policy is directed towards the effective development of literacies which help students to critically engage with media and take control of their health, then the policy must be oriented around a theory which is designed to critically engage the individual.

Students' life worlds interact with the meaning-making processes of media and health literacy education in school settings. Previous research has indicated a relationship between health literacy and health outcomes in children, adolescents and adults (Kickbusch, 2007; Rootman, 2005). As one of the student participants stated when asked how she defined health at the outset of this study in Burma/Myanmar, "Health is a resource for living."

This belief is a common thread of this study. The participants experienced health and developed health practices through pathways that intersect with school contexts while also streaming together with their various life worlds.

1.6 Chapter Summary and Chapter 2 Preview

The opening quotation, from the poem, *The Heat Bearer* by Burmese poet Maung Thein Zaw (2013, p. 167) conveys through metaphor the unique human need to have a voice and make meaning as a participant in changing social situations, the situation I found myself in during this study. Chapter 1 introduced some distressing issues and questions associated with adolescent health and digital literacies capacities in general, and in Myanmar/Burma in particular; presented the study's research questions; and discussed the theoretical importance and practical relevance of the study. Chapter 2 situates the research from the perspectives of existing theoretical frameworks and presents a review of primary research conducted in the areas of adolescent development, health, and literacies.

Chapter 2: Literature Review

2.1 Introduction

This chapter is divided into three sections. The first section presents the literacy and learning theories guiding this study: critical literacy and sociocultural theory, and CMHL. The second section presents a review of adolescent development with an emphasis on how adolescents develop in social contexts. The third section reviews literature exploring four areas of research relevant to the current study: (a) how adolescents perceive multiple realities and multiple meanings through social contexts; (b) how adolescents take control of their learning; (c) how curriculum can be facilitated so that adolescents can practice the negotiation of meanings across contexts; and (d) how adolescents respond to curriculum which engage with contexts outside the classroom.

The sources of this literature review are theoretical reviews, systematic literature reviews, and articles on primary research published between 2007-2012. The ERIC (EBSCO) and JSTOR databases were searched between August and October 2012. Search terms for titles, keywords, and abstracts were literacy AND health, critical literacy, health literacy, media literacy, information literacy, digital literacy, new literacies, critical health literacy, critical media literacy, Burma OR Myanmar AND adolescence, health AND adolescence, digital OR media AND adolescence, Burma OR Myanmar AND qualitative research, adolescence AND qualitative research, and Burma OR Myanmar AND health OR education.

Definitions and descriptions of the trends in the areas of critical, media, and health literacies discussed in this chapter are drawn from the theoretical and systematic literature reviews. Due to the lack of research data about the Burmese adolescent literacy capacities, health status, and health outcomes in the ERIC (EBSCO) and JSTOR databases, the World Health Organization and the United Nations Educational, Scientific and Cultural Organization websites were used as sources of information about youth and health in Southeast Asia and for recent information about the health status of people living in Burma/Myanmar.

2.2 Theoretical Orientations

This study was situated from the perspectives of critical literacy (Freire, 2000), sociocultural human development (Rogoff, 2003; Vygotsky, 1978), and CMHL (Wharf Higgins & Begoray, 2012). These theoretical concepts and frameworks were chosen for three main reasons. First, they provided the concepts and language for exploring how adolescents develop and perform literacy processes. Second, existing theories provided the basis of conceptual, operational, and evaluational frameworks for the study from which to plan, design, assess, and understand the findings from the study. Third, working with the theories allowed me to engage with the research discourse about how to improve the policies, design, and pedagogies of literacy and health curriculum for adolescents in high school learning contexts.

2.2.1 Critical Literacy and New Literacies

Literacies are tools for thinking and communication. Kress (2000) presents *literacy* as “socially made forms of representing and communicating” set within contexts of changing “social, political and economic realignments” (p. 157). I interpret

communications to be constructions of meaning which involve language and also "involve modes other than language" (Kress, 2000, p. 183). Socially made forms of communicating are processes relevant to Vygotsky's notion of sociocultural human development in that the processes involve human beings "contextualizing…language" (Gee, 2000, p. 64). This idea of contextualizing involves how "we negotiate over, fight over, and sometimes smoothly and harmoniously share" perspectives (Gee, 2000, p. 64). There is a form of critique happening to make such judgments, but the qualities of critique could be further deconstructed to consider how critique involves culturally transmitted beliefs and behaviours, as well as how critique involves individuals' skills and the beliefs and motivations acquired through practices of empowerment and citizenship. Citizenship is a process by which an individual participates in social contexts, which I interpret to be always and inherently political, for the purpose of making meanings about what a citizen is and how citizens can work together to understand power and change or eliminate oppressive social practices (Giroux, 2005).

Making and negotiating meanings to affect social change requires the human capacity of literacies. Literacies require critical capacities in order to construct and discern knowledge that serves or does not serve individuals and communities. This discernment is based on the critical and conscientious choices empowered by individuals and communities. Critical literacy is a conscientious way of thinking with language that can affect one's sense of critical consciousness for being, knowing, and acting in the social contexts, both private and public, which situate one's life experiences (Freire, 2000). By situating literacy as sociocultural processes dialogically related to individuals' thinking capacities (Vygotsky, 1978), critical literacy is available to function as a

"necessity of using knowledge to address the challenges of public life" (Giroux, 2009, p. 670). Thus, critical literacy can be viewed from a sociocultural framework, functioning as individually constructed processes and knowledge in social contexts, as a person participates in contexts, such as family relationships, learning environments, and mediated digital communications, many of which are networked in implicit and explicit ways.

The experiences and functions of literacies have been conceptualized and shown through current research to be increasingly digital, multi-modal and relevant in a critical capacity to promote active participation in societal contexts. Modes appeal to senses, such as visual and aural, or to qualities such as shape or gesture (Kress, 2000). As Kress (2000) points out, digital technologies "lend themselves to 'visualization', the phenomenon in which information initially stored in written form is 'translated' into visual form" (p. 183) using combinations of modes. Multiple modes, including non-linguistic texts made with images, sound, gesture, shape, colour, and dimension are increasingly created, presented, consumed and reproduced through digital media (Pink, 2011). Texts are "human performances…[in] textual forms" (Pink, p. 263), such as web pages, social media blogs, or spoken and written dialogues which are "read as if text" (Pink, p. 263). For those with access to tools such as smart phone applications and the Internet, digital technologies make communicative forms and content available for constructing and deconstructing knowledge, and for sharing and contesting that knowledge.

Lankshear and Knobel (2011) present a concept of literacies as "socially recognized ways in which people generate, communicate and negotiate meanings, as

members of Discourses in digital contexts, through the medium of encoded texts" (p. 33). Gee's concept of "Discourses" (2000, p. 61) is presented as fluid and expansive processes in which a person presents her/his self and participates in activities, and in which the participation is a hybrid of the person's life worlds…and the interests and authority of the public sphere" of the Discourses. In the conceptual evolution of literacies from capacities to work with typographic systems, to literacies as practices (Scribner & Cole, 1981), and then to literacies as practices subject to the broader range of tools and technologies including the Internet and digital media, the value of new literacies is in the conceptualization of literacies as capacities to think and communicate with symbols that cross borders of modes, digital technologies, and contexts.

Kress (2000) questions the adequacy of literacy theories to address the "radical changes in…social, political and economic realignments" (p. 157) of contexts which are interrelated with digital tools and technologies. As an example, "Internet, online practices [and almost any content] available online become a resource for diverse kinds of meaning-making" (Lankshear & Knobel, 2011, p. 41). Research in this arena is needed because existing theories of language and literacy are not adequate for exploring how literacies such as critical literacy, health literacy, and media literacy, function for human beings to make meanings in a field of digital technologies and networked contexts.

This conceptualization calls attention to the power of socially situated learning. *Social learning*, processes designed to facilitate learning by situating the learning processes within a set of problems seen as important to the learners and supporting the learners in their development of critical capacities and construction of meanings (Brown & Adler, 2008), holds potential for social critique and action. The many and interwoven

new literacies involving digital media content and digital communications tools are available to be observed, critiqued, created and remade by the learners themselves because the communications are recorded and shared by the digital technologies. The complexity of these recorded meanings, and the increasing volume of content calls for critical skills and strategies which have the potential to evolve as learners engage with and develop critical skills and strategies. However, a theoretical concept is needed in order to guide the explorations of the development of the critical skills and strategies of new literacies.

By positioning literacies socioculturally, as having many possible forms and engaging with many processes, students can be viewed as having opportunities to construct meanings as participants in their various social situations (Vygotsky, 1978). The construction of meanings through social learning situates students with inherently interdisciplinary opportunities to critically inquire into the nature and operation of power and to work for change or elimination of oppressive situations in social contexts (Freire, 2000; Giroux, 2005). When approached this way, literacy development has the potential to impact important aspects of human experience, such as health.

2.2.1.1 Critical Health Literacy and Health Promotion

Perceptions of health are based on how health is understood, valued, and performed by individuals in particular settings. Literacy, as a tool for perceiving and formulating actions around health, has a bearing on how health is understood, how health is experienced, and how individuals advocate for themselves to improve health outcomes

(Paasche-Orlow, Parker, Gazmararian, Nielsen-Bohlman & Rudd, 2005). A review of health literacy research conducted in the United States pointed to the importance of reading, writing, speaking, listening, numeracy, cognitive capacity, and cultural and conceptual knowledge to the development of health literacy in individuals (Paasche-Orlow et al., 2005). Health literacy, as a palette of literacies dependent on conceptual and cultural knowledge, is defined by the Canadian Council on Learning (2008) as “the ability to access, understand, evaluate, and communicate information as a way to promote, maintain and improve health in a variety of settings across the life course” (p. 9). This definition of health literacy is a result of a growing body of research investigating the relationships between general literacy, health literacy, and health outcomes.

Health literacy (Nutbeam, 2008; Pleasant, McKinney & Rikard, 2011; Rootman, 2005, Simonds, 1974) has developed into a discrete concept of literacy considering health not just as a ‘risk’ to be mitigated by general literacy in a clinical situation, but rather as an ‘asset’ of conscientious criticality for participating more fully in personal health performances and public life (Nutbeam, 2008). Therefore, health literacy is a discrete form of critical literacy because the development of the capacity is applied to the individuals’ life worlds affecting and affected by health.

From an international view, health literacy is defined in one online publication as “cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health” (WHO, 2009). The *Ottawa Charter for Health Promotion* defines *health promotion* as a “process of enabling people to increase control over, and to improve, their

health" (WHO, 1986). Nutbeam's (2000) definition of critical health literacy emphasizes the "profound implications for education and communication methods" (p. 264) and concerns for the health of the self and others in sociocultural contexts:

> Health literacy represents the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health. (Nutbeam, 2000, p. 264)

Thus, health literacy is integral to health promotion as critical, cognitive and social skills which operate together as capacities for individuals to understand motivations and successfully negotiate positive health outcomes.

When critical literacy is integrated with health literacy, that integration has the potential to create productive power (Foucault, 1979) whereby individuals communicate about, question and examine causes of their particular health issues and possibly create new situations (Freire, 2000) to affect their health status. Empowerment for health promotion is a defining aspect of health literacy and one of the reasons for its development into a discrete form of literacy which can be learned. This key aspect of an empowered stance is important for self-efficacy and participation in processes of social justice to achieve improved health outcomes for individuals and communities.

2.2.1.2 Media Literacy and Health Literacy

Health is a personal and socially produced resource which is represented through digital media that high school students consume, dispose of, construct, deconstruct and communicate with yet more media. Reviews of health literacy studies indicate that a person's capabilities in functional literacy and media literacy directly affect that person's

health literacy (Kickbusch, 2001). A review of how people use health-related websites found that the younger an adult is, the more likely they are to seek health-related information, and one main source is digital media available on the Internet (Alpay et al, 2009). This is a challenge for individuals because the tools for finding information and evaluating its appropriate use require analytical, technological, and social skills in order to make meaning according to one's own health circumstances.

Media literacy's definition is based in large part on research within educational settings (Hobbs & Frost, 2003) and is currently presented in North America as the interdisciplinary "ability to access, analyze, evaluate, and communicate information in a variety of forms" (National Association for Media Literacy Education [NAMLE], 2012). Multiple branches of subject knowledge and variety of forms weave together texts with intended meanings that relate to health. Thus, a person's capacities for media literacy and health literacy have a significant bearing on health (Bergsma, 2004) as a result of decisions about personal health performances (Bergsma & Carney, 2008; Berkman, Davis & McCormack, 2010; Kickbusch, 2007).

Kickbusch (2007) has connected health literacy with the increasing demands of interpreting media messages and constructing one's own messages in ways affect health. Yet, much of the available research literature deals with predesigned interventions and does not address how individuals examine, critique, participate in discourses, or take actions in the course of everyday life.

2.2.1.3 Media Literacy and Social Health Promotion Processes

A systematic literature review of studies on media literacy and health promotion conducted primarily in the United States (Bergsma & Carney, 2008) suggests that

"effective interventions seemed somewhat more likely than ineffective interventions to have taught [a set of] core concepts" (p. 537). The core concepts used as measures for the review were: "all media messages are 'constructed'…using a creative language with its own rules; different people experience the same message differently; media have embedded values and points of view…and...are constructed to gain profit and/or power" (p. 529). This report of the characteristics of effective interventions for media literacy and health promotion recognizes the points of view of commercial media but does not consider the points of view of the individuals who create and consume media. Depending on their literacy skills and practices, consumers of media may to some degree perceive explicitly or implicitly transmitted health messages and norms in the media content, or even interact with the content and processes available in the media. This review does not explore that possibility.

A broader view for educational and research processes would posit the individual as a maker of messages, a participant in media communications, and negotiator in life worlds. This position places a student in a role with "productive power" (Foucault, 1979, p. 194) to find and use their voice in contexts which naturally overlap school and broader life situations. The interaction of individuals with media needs to be examined to understand individual perspectives and how the individual perspectives have the potential to determine and explain the effects of health-influencing messages and health-promoting interventions.

Curriculum processes for media literacy education should include an examination of how media messages are constructed using a range modes, or "textual forms and human performances" (Pink, 2011, p. 263), to express particular human perceptions and

values. A review by Bergsma and Carney (2008) points to the lack of research literature "to explain the context and process elements of an effective health-promoting media literacy education intervention" (p. 537). Research conducted in Canadian contexts by Wharf Higgins, Begoray, and MacDonald (2009) looks beyond explicit health interventions and emphasizes that there is a lack of research data to explain how the interfaces between behavioural, social, cultural and environmental interactions, including those mediated via digital technologies, may influence health literacy of adolescents.

2.2.2 Critical Media Health Literacy

Studies conducted with high school students in Canada (Wharf Higgins, Begoray, & MacDonald, 2009) and Israel (Levin-Zamir, Lemish, & Gofin, 2011) show that media modes and messages affect adolescents' health concepts and choices. This research reports the need for a concept for educators to use to guide literacies' curriculum which aims to help adolescents affect their health status and outcomes. A conceptual frame is needed in order to examine whether and how adolescents learn to engage critically with media messages about health because the concepts of health literacy and media literacy alone are "not comprehensive enough to explain how adolescents interpret health-related content in mass media" (Levin-Zamir, Lemish, & Gofin, 2011). Based on an international range of research literature showing increasing concern for adolescent health issues which persist into adulthood, the evidence of relationships between adolescents' health behaviours and "interaction with and dependence on various media" (p. 138), and the potential of media and health literacy to improve adolescent health outcomes, Wharf Higgins and Begoray (2012) sought to address the need for "a concept to explain [the] empirical evidence" in these areas of research and education (p. 137).

Wharf Higgins and Begoray (2012) conducted a systematic literature review and conceptual analysis of critical, media and health literacy and adolescent education, and as a result, have presented a theoretical concept situated in "constructivist learning and critical pedagogy paradigms" to describe attributes of "skill, empowerment, and engaged citizenship" (pp. 139-140). The model is designed for exploring and understanding how students critically interpret and use media as a means to engage in decision-making processes and dialogues; exert control over their health and everyday events; and make healthy changes for themselves and their communities.

Recognizing that students' experiences in contexts beyond school settings play an integral role in the students' emotional and motivational interactions with curriculum processes in school settings (Skinner, Furrer, Marchand, & Kindermann, 2008), Wharf Higgins and Begoray (2012) present the *Three Concept Process Model for CMHL* to describe the dynamic and potentially generative literacy capacities through which people interact to make meanings in the contexts of their lives. Figure 1 *Defining attributes of CMHL* illustrates attributes integrated through the processes of the model. The process model demonstrates how the integration of skills and strategies within situations of both consumer risk and empowered citizenship are situated to potentially promote health as a valuable social resource for engaged citizenship. Antecedents of the model describe how CMHL research and curriculum require a dialogical learning environment situated for each student to critically evaluate media and health issues in their communities with a view to "address social determinants of health" (p. 141). The antecedents are positioned to help students generate attributes of critical, empowered citizenship, and those attributes in turn have potential to generate outcomes of "[p]ersonal, cognitive and social

abilities to critically interact with media…making individual and collective healthy and productive decisions across life setting … informed, involved, and included citizens effectively participate in the complexities of modern life" (p. 141).

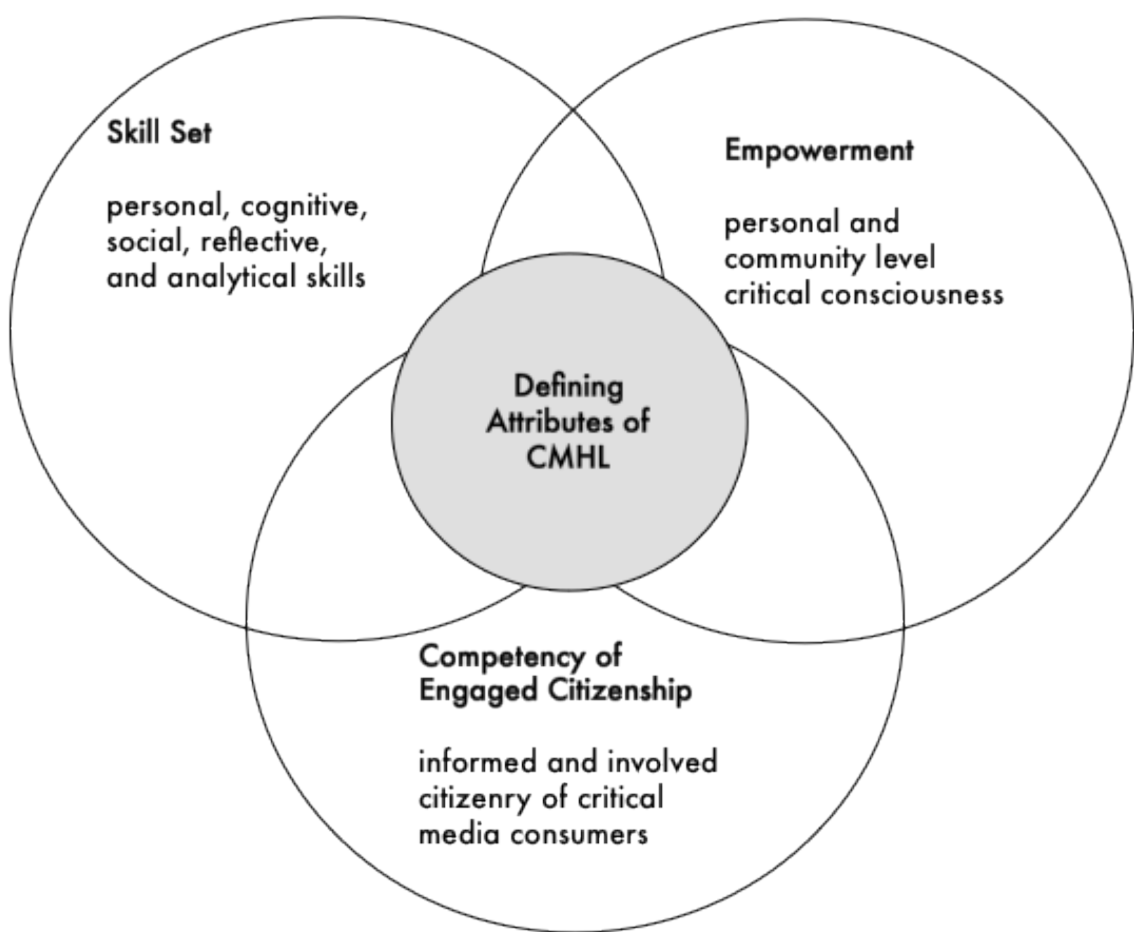

Figure 1. Defining attributes of CMHL (Wharf Higgins & Begoray, 2012).

The *Three Concept Process Model for CMHL* aligns with a sociocultural (Vygotsky, 1978) view of critical citizenship (Freire, 2000; Giroux, 2009). Several qualities of the model offer a focus for exploratory research on the functioning and characteristics of literacies from that view.

First, the relationships of antecedents, attributes, and outcomes are presented as interrelated via skill sets, empowerment, and citizenship. Rather than conceptualizing social contexts as an inside school-outside school dichotomy, the Three Concept Process model of CMHL presents educators and researchers with a theoretical basis for research and curriculum framework to explore and take action in the "borderlands between media and health" (p. 144) that exist for adolescents in their multiple, and often contesting, personal life worlds and social contexts. The learning environment of an education course may be positioned as a realm for practicing skills and processes of empowerment and citizenship.

Second, the attributes are constructed in a way that allowed for change. The attributes are not defined as a model of objective constructs which exist in reality, but rather as capacities, in terms of processes interacting through skills, beliefs and motivations of empowerment, and engaged and informed involvement in acts of citizenship as media consumers.

Third, the processes are presented as operating at personal *and* social levels at the same time and as processes rather than entities. If the processes were presented in a way that separated the individual from social contexts, such as conceptualizing the individual at the centre of concentrically-positioned systems as with Bronfenbrenner's *Ecological Systems Theory* (1979), then the model would be less useful for exploratory research into the evolving realm of literacies because the individual and the social systems would be viewed as existing in objective reality as separate entities. This view reduces sociocultural theory to focus on social influences *on* the individual, reducing the focus on the various ways that the individual *is* sociocultural according to "Vygotsky's emphasis

on cultural processes" (Rogoff, 2003, p. 54). I interpret the concept of CMHL as a model of potential capacities for literacies in contexts of the contemporary world. The attributes, as personal and social capacities, may be present to some degree in human consciousness and interactions. For example, personal analytical skills may be present to some degree in students' dialogues within the contexts of a community level project, and the dialogues may express some degree of critical consciousness about a link between social media and health issues. Further research is needed to explore how the antecedents, attributes, and outcomes operate and are interrelated, how students' beliefs and behaviours interact with these constructs, and how students develop CMHL and construct community action and citizenship in the field of health.

2.2.3 Summary

These theoretical orientations provide sociocultural perspectives on literacy learning and the curriculum that supports the learning process. The theories selected as guides to this study provide a basis for exploring: (a) the presence of critical, media, and health literacy in adolescents situated in Burma/Myanmar; (b) interactions of individuals in literacy development as sociocultural processes; (b) the roles and impacts of beliefs and values on meaning making and intended actions in health performance; and (c) the processes of curriculum aimed at helping adolescents develop CMHL. CMHL offers a basis for guiding curriculum design and pedagogy. Furthermore, it offers a conception of the processes of critical participation in the development of literacies skills and strategies, empowering adolescents to affect relevant and improved health outcomes in their social and cultural settings. This study situates literacies as critical capacities for creating

meaning through empowered actions in contexts involving health, recognizing individuals as the subject of their realities.

2.3 Adolescence

Research has shown that adolescence is given significance by communities around the world as a time of physical and social maturing (Schlegel & Barry, 1991). The significance of adolescence is recognized by communities that are situated in contexts with various levels of economic development and industrialization (Schlegel & Barry, 1991). Adolescence is significant because it is a time of transition "in which responsibilities and independence are greater than those of children but not yet those of adulthood" (Rogoff, 2003, p. 172). The developmental processes may or may not involve the negotiation of conflict and crisis (Rogoff, 2003), while leading towards the attainment of a stable, independent role in society (Steinberg, Vandell, & Bornstein, 2011). This is a complex period, one which foreshadows future transformations in adulthood in which a person must negotiate a growing number and complexity of relationships.

2.3.1 Physiological Transitions

The physiological changes that a person undergoes during adolescence are unique in that continued neural development is based on intensive experiences (Blakemore, 2012). Adolescence is characterized by "major changes in the neural systems that subserve higher cognitive functions, reasoning and interpersonal interactions, cognitive control of emotions, risk-versus-reward appraisal and motivation" (Paus, Keshavan, & Giedd, 2008, p. 954). There is a lack of data to explain differences in how young people negotiate social pressures and why some people are more successful negotiating communities in terms of their own wellbeing (Blakemore, 2012). Research into how

literacies functions for adolescents to affect their own wellbeing may help to explain these differences.

Research has shown that mental health issues may manifest in adolescence from socially generated stress. For the purposes of this study, *mental health* is defined as "paying attention to your intellectual, emotional, and spiritual health – as well as your physical health" (The Canadian Alliance on Mental Illness and Mental Health [CAMIMH], 2012). *Mental health literacy* is a concept that integrates mental health needs with literacy-based responses to those needs. Mental health literacy is defined as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention" (CAMIMH, 2007) across the lifespan of individuals.

Vulnerability depression, anxiety disorders and eating disorders increase steeply during adolescence (Paus, Keshavan, & Giedd, 2008). A review of research into brain development suggests that adolescence is "a period of synaptic reorganisation and as a consequence the brain might be more sensitive to experiential input" (Blakemore & Choudhury, 2006, p. 307). This idea points to the need for educational processes that engage young people in curriculum to examine how experiential inputs affect health outcomes, such as harmful stress, and to investigate ways of affecting these outcomes.

Adolescent health issues are often interrelated. Exposure to violence compounded with chronic stress increase the risk of experiencing depression during adolescence (Colman & Ataullahjan, 2010). Mental health issues, such as vulnerability to depression, anxiety disorders and eating disorders, increases steeply during adolescence and may manifest from socially generated stress (Paus, Keshavan, & Giedd, 2008). Cumulative effects of risks such as these are important predictors of a young person's capacity to

adapt cognitively and behaviourally to risks over time (Atzaba-Poria, Pike, & Deater-Deckard, 2004). In turn, the development of capacities to adapt cognitively are potentially important for adolescent health promoting actions.

2.3.2 Sociocultural Transitions

Adolescents transform psychologically in terms of self-consciousness and through relationships with people in their communities (Steinberg, Vandell, & Bornstein, 2011). Adolescence as a stage of human development varies in its age of outset, generally beginning between the ages of 10 and 12 and continuing in some cases to age 26 (Santrock, 2005). In general, adolescents compare with children as “more sociable, form more complex and hierarchical peer relationships and are more sensitive to acceptance and rejection by peers” (Steinberg & Morris, 2001). An adolescent will likely participate in a growing range of contexts and new types of activities during their transition from childhood to adulthood. “Many activities that a community may treat as having a ‘natural’ point of transition are only natural given the assumptions and the circumstances and organization of that community” (Rogoff, 2003, p. 171), therefore research into how adolescents participate in social learning explores the assumptions and circumstances and organization of the relative communities. The unique assumptions of communities, including those mediated by digital social networks and messages, are parts of the social influence that affect the social and physiological transition of adolescence.

Adolescence is also characterized as a process of human development through which relationships transform with peers and family (Steinberg, Vandell, & Bornstein, 2011). Relationships of high quality are characterized by “sensitive and caring interactions with adults, rich conversations, stimulating materials” (p. 464). Educational

contexts offer one important opportunity for these types of interactions, yet international research indicates that opportunities for negotiating knowledge and meanings in education settings "account for less that 10% of instructional time" (p. 414). These findings show that adolescents need educational opportunities to engage in dialogical activities in which they can negotiate meanings from their contextual perspectives.

2.3.3 Health Concerns

The physiological and sociocultural demands of adolescence require attention to health. The most significant threats to health in adolescence are "self-imposed, and therefore avoidable" (Steinberg, Vandell, & Bornstein, 2011, p. 402) The health of adolescents involves the increasingly sedentary behaviour which is linked to chronic health issues that persist into adulthood. Concern for the health of young people originates in part from the increasing amount of time spent in sedentary states while interacting with digital media. To study the influence of digital media on sedentary behaviour (Rey-López, Vicente-Rodriguez, Ortega, Ruiz, Martinez-Gómez, De Henauw, Manios, Molnar, Polito, Verloigne, Castillo, Sjöström, De Bourdeaudhuij, & Moreno, 2010) implemented the American Academy of Pediatrics recommended guide for maximum media time per day and a self-reported questionnaire to measure television and digital media use of the study participants. The purpose of the study was to describe sedentary behaviours in adolescents and to examine the influence of media availability on TV viewing. The participants of the study came from various social and geographical contexts including Athens and Heraklion in Greece, Dortmund in Germany, Ghent in Belgium, Lille in France, Pecs in Hungary, Rome in Italy, Stockholm in Sweden, Vienna

in Austria, and Zaragoza in Spain. The participants numbered 3,278 and ranged in age from 12.5 to 17.5 years old.

One third of the participants of the study exceeded the recommended limit of "≤2 h/day...during weekdays, whereas six out of ten exceed it during weekend days" (p. 53). The researchers note "evidence of the benefits of reducing TV levels on health outcomes (like body composition),...[specifically,] a decrease in computer use of 50% had significant reductions in body mass index" (p. 53). The changes were more due to reduced eating than increased physical activity, which suggests a significant opportunity for media literacy and health literacy educators to promote a broader examination of healthy lifestyles. This quantitative data does not address how young people develop awareness of sedentary effects of passive media use, awareness of the influences of media content and activities, or strategies to examine causes of motivation for self-aware choices that impact health outcomes. By showing a relationship between digital media use and health outcomes, this study suggests a need for young people to develop skills and strategies for CMHL.

2.3.4 Motivation and Autonomy

Skinner, Furrer, Marchand, and Kindermann (2008) conducted a 4-year longitudinal study to explore the factors of student engagement in learning, with a focus on students transitioning to adolescence and middle school. The foundation of this inquiry is based on documented research indicating,

> students who are engaged in school are both more successful academically and more likely to avoid the pitfalls of adolescence, [while research also indicates] a

steady decline in students' engagement with schooling, including their interest, enthusiasm, and intrinsic motivation for learning in school. (p. 765)

The researchers note that the literature indicates "behavioural and emotional engagement and behavioural and emotional disaffection are structurally distinguishable" (p. 767). Based on a theoretical approach to engagement as a metaconstruct of dynamically related dimensions of motivation and engagement in learning (Fredricks, Blumenfeld, & Paris, 2004), the researchers focused on "the distinction between indicators versus facilitators of engagement" (p. 766) of learning processes situated in a school, that is, a *construct of engagement*. Indicators of engagement "refer to the features that belong inside the construct of engagement proper, whereas facilitators are the causal factors (outside of the construct) that are hypothesized to influence engagement" (p. 766). This distinction is potentially useful to research which explores how indicators and facilitators of engagement work in relation to the students' various social contexts and social learning curriculum situated around a problem or action (Brown & Adler, 2008).

Skinner, Furrer, Marchand, and Kindermann (2008) collected data through a questionnaire. The questionnaire was structured based on the self-system model of motivational development. The model is designed to explore the internal dynamics of engagement by examining how different components of engagement shape each other over time [and] the larger motivational dynamics of which engagement is a part by examining how contextual and personal factors contribute to changes in engagement itself.

In this model, the learners' perceptions and behaviours of relatedness, competence, and autonomy are positioned dialogically using constructs of students'

belonging or relatedness to teachers and the structure and autonomy support experienced with teachers. Competence is conceptualized as "the experience that one can effectively bring about desired effects and outcome" and experiences of competence generally associate with feelings of autonomy and subjective wellbeing (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000, p. 420).

Participants of the study by Skinner, Furrer, Marchand, and Kindermann (2008) included 805 adolescents and 53 teachers situated in public school in a middle-class, rural-suburban setting in New York state. Students and teachers completed self-report questionnaires in October and May over four academic years. Students selected from positively and negatively worded items to describe "their engagement versus disaffection in the classroom, their sense of perceived competence and control in the academic domain, autonomy in the classroom, and relatedness to their teacher and their impressions of the support they received from teachers" (p. 769). Teachers also selected from positively and negatively worded items to report on their perceptions of the support they provided to students.

Behavioural engagement was analyzed with data describing "students' effort, attention, and persistence while initiating and participating in learning activities" (p. 769). Emotional engagement was analyzed based on data describing students' "motivated participation during learning activities" and emotional disengagement was analyzed with data describing withdrawal or feelings of during learning activities. Both students and teachers reported on their perceptions of support provided by the teacher related to involvement, structure, and autonomy.

The analysis of descriptive data from the questionnaires showed that the indicators of student engagement; that is, behavioural and emotional engagement and disaffection, measured higher levels at the beginning of the academic year and declined slightly toward the close of the academic year. This trend continued over the four-year course of the study and during the student's transition to middle school. This suggests that curriculum needs to be designed in ways that promote the engagement of adolescents in problems and actions that they are motivated to address during this important time of transition. The findings suggest that curriculum should be facilitated explicitly with students to develop autonomy because the data showed that the "clearest contributor to engagement was a sense of autonomy. Autonomy was a particularly strong predictor of changes in emotional engagement and disaffection-especially, as expected, of changes in boredom and frustration" (p. 777). In addition, the findings suggest useful constructs for exploring how curriculum and pedagogical practice support the development of learners' capacities for personal motivation, competence, autonomy, and a sense of relatedness to communities in which they can carry out socially beneficial actions.

Several findings of Skinner, Furrer, Marchand, and Kindermann (2008) are relevant to the study of literacy curriculum with adolescents in Burma/Myanmar. First, the researchers found that students who "began the year secure in their relationships with teachers increased in their effort and enjoyment" (p. 777) and as students' perceptions of secure relationships with teachers declined, the students' emotional and motivational engagement also declined. Second, the findings of this study show that the way the teacher facilitates curriculum is an antecedent to the outcomes. Curriculum which fosters a sense of relatedness in the learning processes and structures learning to support the

adolescents' development of competence and autonomy in learning achievements, with awareness to contextual dynamics in which the students' lives are situated, contributes to a generative dynamic benefiting students and teachers as co-learners. The findings show that "students' perceptions of teacher support seemed to contribute to changes in engagement over the school year by shaping children's views of themselves as competent, autonomous, and related to teachers" (p. 779).

These findings are important for research into how curriculum operates as a set of theoretical constructs and how learners benefit, or do not benefit, from those curriculum processes. The model may help to explain "the interpersonal and psychological processes by which engagement is promoted or undermined" (p. 768) as part of a curriculum focused on engaging students' contexts of media and health that share boundaries with the structured learning processes of educational curriculum. The distinction of antecedents of learning outcomes would support explorations of how indicators, for example students' observed motivation or disengagement in curriculum processes interact with facilitators, such as students' self-perceptions and practices of relatedness, competence, and autonomy, or teacher support. These self-perceptions have been shown to be related to adolescents' levels of self-motivation and sense of wellbeing (Deci, 2009), and enhanced motivation has been shown to in turn enhance autonomy (Haffen, Allen, Mikami, Gregory, Hamre, Pianta, 2012), an important capacity for adolescents engagement with curriculum.

Skinner, Furrer, Marchand, and Kindermann (2008) argue that emotions are affected by external and internal dynamics and are related to learning and achievement outcomes but the model utilized for their study is composed of constructs to describe only

the learning context. An overarching social process model, such as the three process model of CMHL (Wharf Higgins & Begoray, 2012), would support an exploration of the interactions and influences of students' contexts and the teachers' contexts that interrelate with the learning context. Furthermore, this combination of models for research and curriculum would be useful if explicitly shared with students in an effort to facilitate students' critical exploration of their perceptions about influences affecting their health.

These findings show that curriculum must be designed for adolescents in order to frame learning processes around problems that adolescents are motivated engage in for their wellbeing and to develop autonomy for continued engagement in the problems of their social contexts into adulthood. Moreover, the findings show that the contexts students and teachers bring to learning processes are not situated in an inside school-outside school dichotomy, but through their participation in curriculum, have a bearing the antecedents and outcomes of the learning process.

2.3.5 Health Behaviours and Health Literacy

Li-Chun (2010) implemented the Test of Functional Health Literacy in Adolescents (c-sTOFHLAd) and health-promoting behaviour scale to study the health literacy of adolescents. The test and scale was originally developed for Western, English-speaking contexts, but has been translated for use with people who use Chinese languages and are in Asian settings.

The purpose of the study was to examine the associations between health literacy, health status and health-promoting behaviours in Taiwanese adolescents. Participants were 1,601 high school students with an average age of 17.

The survey was subscaled by "nutrition, exercise, stress management, interpersonal relations, health responsibility and self-actualisation" (p. 190). The findings show that participants with high levels of health literacy seek and use new information to engage in health-promoting behaviours. The participants with high levels of health literacy “focused on establishing meal patterns and making food choices” (p. 194) and showed capacities to access, understand and use problem solving skills to apply health information received from “non-clinical sources and settings such as newspaper or magazines” (p. 194). Social relationships were shown to be significant in the development of health literacy for adolescents in this study which suggests the need for health literacy curriculum to involve social contexts beyond the physical classroom situation.

These findings show that health literacy is relevant to an Asian context as a set of capacities that reach beyond the constraints of instruments which focus primarily on reading and comprehension skills. Higher levels of comprehension of words and written content about health correlates with higher health outcomes, but the methods cannot account for oral or written discussions, or critical literacy strategies that may enhance an individual’s capacity to evaluate health messages to conceptualize and perform health promoting actions, rather than passively receive and comprehend transmitted information.

2.3.6 Media Literacy and Health Outcomes

Education can increase media health literacy and the higher the level of media health literacy in a person the more likely they will be to improve their capacities to potentially affect health outcomes. Levin-Zamir, Lemish, and Gofin (2011) developed a

conceptual model of media health literacy and a questionnaire to examine the role of media health literacy in developing the capacity for health promoting behaviour in adolescents, described in part by personal and socio-demographic data, co-viewing of television programs, and sources of health information.

The purpose of the study was to "examine the use of a model of Media Health Literacy constructed as personal/socio-demographic determinants, reported sources of health information, and promotion of empowerment and health behaviour" (p. 323). The implemented the model in health curriculum and collected data from 1,316 adolescent female participants in grades 7, 9, and 11 in central Israel. Data was collected during a structured curriculum conducted with television videos chosen by the researchers.

The researchers found that young women who build their capacities for media health literacy by critiquing television media content reported a higher number of "adult/interpersonal sources of health information" than those with lesser media health literacy capacities (p. 332). The researchers infer that this may be due to the intervention facilitating dialog, noting, "verbalization enhances [media health literacy] creating awareness of content, crystallizing an opinion, deliberating about the significance and reflecting upon what can or should be done" (p. 332). Yet, the study did not examine these capacities directly through observations.

The categories of the theoretical model operationalized for the research was shown to be scalable and therefore potentially a methodological frame for educational settings with fewer participants than in this study. The categories of the theoretical model are sequenced as "identification/recognition, critical evaluation of health content in media, perceived influence on adolescents and intended action/reaction" (p. 333). The

categories form a useful strategic path for facilitating the practice of media health literacy capacities with students. This study showed that a concept of media health literacy worked in curriculum to examine learning processes and help students learn a specific type of media health literacy, specifically the critical viewing of television drama. The results point to a need to explore a broader view of how students passively receive or actively seek health information in school settings and social contexts which overlap with school.

2.3.7 Blurred Boundaries of Health

Wharf Higgins, Begoray, and MacDonald (2009) broadened the frame for health literacy curriculum by incorporating intrapersonal, interpersonal, and community factors with the recognition that "adolescents behave based on how they understand the world around them" (p. 352) and "the boundaries between the student, school and families became blurred, with each having ripple effects on the other" (p. 385). Based on this social ecological view of health literacy, the researchers conducted a survey to gather data about "students' preferences for and ease of accessing sources of health information, perceptions of important factors influencing their own health...strategies for assessing the accuracy of health information, physical activity levels, and ideas on how their school can improve student health" (p. 353).

The purpose of the research was to "to develop a conceptual model to advance an understanding of health literacy that reflects a social ecological framework and recognizes internal and external influences" (p. 353). The study was conducted in British Columbia, Canada with 194 student participants and 15 teacher participants. Student ages ranged from 14 to 17 years old.

The findings show “the positive and negative influence of parents on health literacy...in terms of modeling behaviours and [making it] difficult to make healthy choices” (p. 357). Findings pointed out that student contexts of self, school, and family are unclear yet interrelated. The researchers found that students’ development of health literacy depends on “how students’ lives are affected by the decisions of others, both proximal and distal” (p. 360). This study shows that young people need guidance to develop critical capacities to navigate and take health promoting actions in their various social contexts.

2.3.8 Adolescent Voices

Begoray, Wharf Higgins, and MacDonald (2010) conducted focus groups to collect data “to examine the extent to which a required grade 10 provincial curriculum develops adolescents’ health literacy, defined as the ability to access, understand, evaluate and communicate health information” (p. 36). The researchers collected descriptive data in high school settings in British Columbia, Canada. Thirty-two students aged 14 and 15 participated.

The researchers found that the extent to which students developed health literacy was influenced by “the quality and quantity of the health information disseminated in class; the communication or teaching styles through which the information was delivered; and students’ experiences of using health information sources beyond the classroom” (p. 37). Findings showed that participants disliked “the overly generalized information they received [and requested] more personalized assistance or at least some opportunity to individualize information to make it personally relevant” (p. 37). The researchers also noted that participants “spoke about other sources of information that influenced their

health literacy including friends and family, school clubs, coaches, nutritionists, trainers, doctors and the media" (p. 40). This study shows that students need a role and a voice in exploring sources of information specific to their perceptions of health, and health literacy curriculum needs to include processes that reach into social contexts beyond the classroom.

Students are situated in many social contexts that constitute their overlapping life worlds, contexts in which they create meanings that are important to their development of health beliefs and behaviours. In a qualitative study situated in Canada, Woodgate and Leach (2010) explored how young people considered their health in relation to their various life contexts. The purpose of the study was to "explore how Canadian youth frame health within the context of their life situations" (p. 1173). The study was conducted in Western Canada with 71 participants between the ages of 12 and 19.

The study's methodology utilized interviews, fieldwork, and photovoice media projects of participants for data collection. The researchers found that the participants most often communicated about healthy eating and exercise, but did not critically explore how the cultural contexts may influence health. Therefore, they concluded "we need to do more in relation to advancing [young peoples'] understanding of the connections between the broader determinants of health and their own health circumstances" (p. 1180). Findings show that young people "are capable of a broader understanding of health if given the knowledge and skills to do so [by] teaching youth about healthy lifestyle practices" (p. 1180). In order to create conditions in which young people have the potential to take control of their own health practices, educational environments must offer overlapping social settings for students to examine health themes important to them

and to develop capacities for critical examinations and actions to affect health. Photovoice is intended to provide a method for a firsthand, narrated, and filmed critical exploration of cultural processes and for empowered actions to take control of one's circumstances, yet in this case photovoice did not lead to a broad view of health and cultural influences. The learning process needs facilitate students' practice of skills and strategies for interacting critically and constructing meanings in relation to participants' health concerns and social contexts.

2.3.9 Summary

These studies demonstrate that health is a concern for adolescents in many settings around the world and research evidence is indicating that adolescent media and health literacies affect communications about health. Moreover, this research shows that health is framed by social contexts and systems, and social contexts include the voices of the individuals who participate, voice their concerns, and take action in affecting those concerns in social contexts. One important social context for adolescents is educational curriculum, and there is a need to facilitate curriculum process in which the student can develop a voice.

2.4 Critical, Media, and Health Literacies Curriculum

The remainder of this chapter focuses on how curriculum facilitates the learning of critical, media, and health literacies. There is an emphasis on the sociocultural value of contexts that are brought together for literacy curriculum and with the active participation of students. The studies presented focus on (a) how socially constructed communities help student to assess multiple viewpoints; (b) how taking control of learning helps adolescents develop critical literacies; (c) how negotiating meanings across contexts

builds critical literacies; and (d) how community building helps young people develop critical literacies for health promotion in their communities.

The empirical research presented above focuses on the experiences of adolescents, ranging in age from 12 to approximately 20. This age group is close to the age range of the students in Burma/Myanmar who participated in this study. Given the lack of research available on adolescents in Burma/Myanmar, a broad age range provides a potentially broader range of adolescent characteristics for reference in the analysis of this study. Moreover, given the limited research available which integrates critical, media, and health literacy curriculum for adolescents, a broad age range provided a sample of explorations of various aspects of these literacies and various combinations of critical, media, and health literacies as they involved health and sociocultural actions.

2.4.1 Multiple Views and Multiple Meanings

Online digital tools and content are increasingly part of the social settings of young people. The online settings are sites for learning, although what is learned is often not explicit or formal in terms of a facilitated educational environment. Given that learning and knowledge are socially constructed, digital online discussions are potentially a valuable part of the educational environments and a rich source of data for exploring how young people learn critical communicative capacities.

Larson (2009) examined “how fifth graders socially construct learning while interacting with and responding to literature using an online message board” (p. 639). Participants were ten adolescents situated in a school in the Midwestern United States. The researcher collected and analyzed qualitative data collected through an asynchronous online message board in which students constructed their own interpretations of literature

as part of a language arts course. The research showed that the students “created close-knit communities and broadened repertoire of response strategies” (p. 643). This conclusion points to the participatory and social nature of learning, a process which can take place in digital online life worlds created by a group of students for a period of time. This research showed that students created writing prompts to share with other students, and the prompts corresponded with “prior experience, predictions, inferences and problem solving, eliciting feelings of empathy, contemplate values, meanings, make judgments, ask for clarification” (pp. 643-644), indicating an overlap with social contexts in their life worlds beyond the classroom. These findings indicate that educational environments need to facilitate more time and ways for students to construct knowledge through interactions with each other and in participation with students' life roles, values, and experiences.

The family is one important social system in which adolescents participate and it overlaps with other social contexts. Serek, Lacinová, and Macek (2012) examined “whether the way in which adolescents perceive interparental conflicts predicts how they perceive political efficacy in their communities” (p. 578). The researchers collected data in 2006-7 from 444 participants of age 15, and then collected data from the same participants in 2008-9. The participants were residents of Brno, Czech Republic. The self-report questionnaire was used to collect data about adolescents’ political efficacy, perceived frequency of interparental conflicts, perceived interparental conflict efficacy, depressive mood, and personality traits, and avoidant coping style.

The researchers found “significant direct association between interparental conflict efficacy and political efficacy” (p. 581) in adolescents. Quantitative data from

self-report questionnaires showed that "[y]oung people who perceive themselves as able to achieve something positive with arguing parents perceive that they have more influence in their communities, as well" (p. 582). This suggests that situations where conflicting views must be negotiated have the potential to help adolescents develop self-efficacy in life worlds which extend beyond family situations. If the personal strategies are transferrable to other social contexts, educational settings could provide opportunities for adolescents to critique and discuss "hierarchy, conflict, and subordinate position of adolescents/citizens" (p. 582). The researchers point to the need for more in-depth analysis to understand the personal strategies involved in negotiating conflicting views and how "their assessments of their own capabilities, such as negotiating and voicing one's own opinion, play a role" (p. 582). The facilitation of critical literacy strategies with students is key to such an analysis because critical literacies hinge on strategies for thinking, communicating, and negotiating.

2.4.2 Taking Control of Learning

McBride (2012) conducted a qualitative research project to examine information literacy capacities while constructing a course with students to learn about digital media information and communications. The curriculum involved learning strategies for locating, evaluating and constructing information in virtual and real social contexts. The purpose of the study was to "examine how concepts behind transliteracy and metaliteracy work in an information literacy course and with Constructivist and Connectivism approaches for information literacy instruction" (p. 287). *Transliteracy*, a concept related to new literacies and conceptualized to involve social media not limited by technology, is concerned with mapping meaning across different media and not with developing

particular literacies about various media (Ipri, 2010). Observational data was collected from 24 adolescent participants who were of university undergraduate age and situated in an educational program in Buffalo, New York.

The results show during the course of their research projects, students "conduct [ed] interviews…with people who were experts in the content area…[and] reached out to faculty…who they would not usually encounter (p. 297). McBride defines *metaliteracy* as an abstract view of information, and the researcher uses this concept, along with transliteracy, to explore how students work with the information they gathered to create and rework meanings across contexts rather than within the specific technology tools used to access information and create information. The findings show that when an educator facilitates critical explorations of student-chosen themes and students are given the opportunity to construct and communicate meanings from their experiences, the "connections allow the learner to expand their knowledge base and thus create the opportunities for deeper learning and [critical] thinking" (p. 298). Critical media literacies and constructivist educational activities have the potential to help students take control of their own learning.

2.4.3 Negotiating Meanings Across Contexts

Nahachewsky and Ward (2007) studied the critical characteristics of high school students' synchronous and asynchronous online writings through observations of communications in the course's online bulletin boards, semi-structured in-person and online interviews, and a systematic analysis of students' online comments and dialogues. The purpose of the study was to "explore online writing practices of senior high school

students in a literature course” (p. 50). Participants were high school students in a school in Western Canada.

The analysis of data uncovered “complex constructions and understandings of situated self/culture evident in the multi-layered and polyphonic writing as counterpoint to other [students and the teachers]” (p. 57). This analysis shows that literacy practices embed personal and social layers in the processes and in the online socially constructed texts. Online environments have potential for students to examine their identities with various life worlds and voices to counter or correspond to themes in the online conversation, and in light of the power that is integral to the negotiation of “creating and acquiring knowledge” (p. 53). In addition to the evident constructions of meanings in the online writing data, the researchers report absences of communication about the course curriculum and, notably, silence when “introducing a new theme before the teacher does so” and an absence of critique by students of the “courses' textual choices or content and structure” (p. 58). This is useful for data analysis methods because absences of critique, as well as pauses and absences in online conversations, need to be examined as part of the data set to induce an overall picture of themes and thematic trends.

2.4.4 The Potential of Social Learning

Gillen, Ferguson, Peachy, and Twining (2012) used Teen Second Life, a free and online 3D virtual world intended for social interaction, to conduct a study of online interactions of teenagers and educational staff from school and club settings around the world in an online virtual regatta. The purpose of the study was to explore the questions,

> How do people work together, including through the use of (virtual) artefacts, to solve problems? What particular qualities of the literacy practices surrounding the

> [online] regatta appear to us to involve learning? What are the implications of taking a distributed cognition perspective on multimodal literacy practices for understandings of learning and approaches to analysis? (p. 151)

Adolescents from the United Kingdom, United States, and the Falkland Islands participated, but the number of participants is not reported. Participants used "avatars – projections of participants that can seem to move, communicate and act on the environment so that it is actually changed" (p. 152) to interact online. Participants were situated in overlapping life worlds from which they engaged online. Data was collected through text posted on the online discussion forum for planning the online 'sailing' event, online logs of synchronous messages, and the project wiki of advertisements, images, and participants' reflections on events. The findings show that distributed cognition, which "takes the culturally constituted group, rather than the individual, as its unit of analysis" (p. 154), is evident in the "patterns of participation…and communicative activities" using symbols and "collaborative processes" of languages (p. 164). Researchers found the participants as a community had significant potential for learning skills for asking considered questions, helping and "express appreciation of others' achievements, participation across diverse communicative domains, using each for distinctive purposes" (p. 164). This study shows that online dialogues can be rich sources of qualitative data, and the learning of critical literacy processes through social learning may be enhanced by online communication and activities that connect life worlds and provide time and space for learners to construct meanings which overlap social contexts.

Another study showed that students benefited from engaging in learning processes that reached beyond the school setting. Simovska (2012) conducted a case study focusing

on learning processes based on participatory democracy and involving students to bring about health promotion changes in a school setting and developing “ownership, efficacy, and achievement in working with ‘real-life’ problems” (p. 1). The case study is related to a broader European Union intervention project with the objective of promoting health and wellbeing among children between the ages of four and 16 .

The study was conducted in one school in the Netherlands and participants included ten students and two staff members of the school. The student age range was four to16. Qualitative data was collected with project documents, interviews, and observations.

Simovska’s (2012) findings show that students developed skills and strategies for “influencing the matters of concern and supporting peers [and] for trying out new skills and gaining a sense of achievement and self-confidence” (p.7) and the participatory process benefited from these developments. In this study, participation is facilitated “in terms of...inclusive structures, supportive relationships...and presupposes fostering pupils’ self-awareness, decision-making, and communication capacities” (p. 4). Students participated in councils to address “road safety around the school and a playground for a disadvantaged community near the school” (p. 7). These findings show that students invest themselves in changes which they can affect in conscious ways. These critical and sociocultural capacities lend themselves to health promoting social learning in which students building a collective ethos around a health issue they view as important.

2.4.5 Summary

This research shows that curriculum for critical, media and health literacies, if it is

constructed and facilitated in ways that help adolescents take control of their learning, holds potentials to help negotiate meanings across contexts to build their critical literacies focused on health. There is however a lack of data to explore how these findings potentially relate to, or have the potential to support, adolescents in Burma/Myanmar.

Nevertheless, an increasing body of research from studies conducted in Canada, the United States, South America, Europe, Africa, Australia and Taiwan to describe various aspects of the problems presented by the research provide guideposts for initiating research in Myanmar. Several studies describe qualities of literacies that potentially relate to health performances. Some of the studies show how the development of media and health literacies has the potential to help young people transform their health beliefs and performances in ways that could improve their individual health status and the health of others in their communities.

2.5 Health, Literacies, and Adolescents in Burma/Myanmar

There is lack of research on the health concepts and health issues of young people in Burma/Myanmar. There is also a gap in the research literature to explore the potential relationships between critical and active participation in health performances and health outcomes for adolescents in Burma/Myanmar. However, there is emerging evidence of literacy levels and health outcomes of adults in Burma/Myanmar that present a view of trends that are relevant to the adolescent population.

The general literacy rate in Myanmar, measured as the ability to write a simple message in any language or dialect (UNESCO, 2010), is 91.9% for people over the age of 15. Use of digital media via the Internet to reading content and create communications is increasing. Internet use has increased in Myanmar from .0002% in 2003 (UNESCO,

2003) to .2% of the population in 2009 (Openet, 2012). For the purpose of my study with adolescents, literacies involve "reading, writing, and a variety of social and intellectual practices that call upon the voice as well as the eye and hand [using] non-digitized [and] digitized multimedia" (The National Council of Teachers of English [NCTE], 2007, p. 2). This definition encompasses a range of literacies as tools for communication and cognition, which are thinking processes for understanding and negotiating social situations and constructing knowledge. But there is a lack of research to describe how literacies are expressed by Burmese young people and how literacy curriculum helps high school students in Myanmar to develop critical capacities for interacting through digital media and address issues of health.

Research evidence has shown that health issues which develop in adolescence often persist into adulthood (WHO, 2012), and recent information about health of the adult population in Burma/Myanmar indicates several trends which are common to adolescent and adult populations in countries around the world. For example, young people in Canada face increasing risks of chronic disease as a result of increasing rates of obesity (Public Health Agency of Canada [PHAC], 2012). Similar situations are arising in Burma/Myanmar. Overweight and obesity characteristics in Burmese adults aged 30 years and older are expected to increase from 39% to 46% in men and from 53% to 60% in women between 2005 and 2015 (WHO, 2012). This trend relates to the leading health risks for adults in Burma/Myanmar. The World Health Organization reports, "[a]t least 80% of premature heart disease, stroke and type 2 diabetes, and 40% of cancer could be prevented through diet, regular physical activity and avoidance of tobacco products" (WHO, 2012, Facing the Facts: The Impact of Chronic Disease in Canada). Yet there is

little information about health education curriculum which could be implemented to help young people in Burma/Myanmar take control of their health and influence their critical and active participation in health performance over their lifetimes.

Looking to the broader geographical area of Southeast Asia, several health issues are treated as priorities by United Nations' organizations and by researchers identified in this literature search. Significant health risks during adolescence are malnutrition and obesity, sexual and reproductive health behaviours, mental health, and violence (WHO, 2008). Unintentional injuries and violence are two leading causes of death in adolescence, and violence is characterized primarily as suicide or violence in family and community relationships (WHO, 2008). Mental health issues, frequently depression and anxiety, are experienced by about 20% of adolescents (WHO, 2008). These health issues initiate implications over the lifespan of a person. It is estimated that two thirds of premature deaths and one third of all diseases in adulthood are related to conditions or behaviours that initiated in adolescence, "including tobacco use, a lack of physical activity, unprotected sex or exposure to violence" (WHO, 2008, Young People: Health Risks and Health Solutions).

Previous research has indicated a relationship between health literacy and health outcomes in children, adolescents and adults (Rootman, Frankish, & Kaszap, 2007). Educational curriculum must address CMHL, especially as people around the world increase their use of media content and digital information and communication technologies for evaluation and communication of health issues that are relevant to their lives (Alpay et al., 2009; Begoray, Cimon, & Wharf Higgins, 2010; Keselman et al.,

2008; Lupiáñez-Villanueva, Mayer, & Torrent, 2009; Marschollek, 2007; Perry & Weldon, 2005; Zarcadoolas & Pleasant, 2009).

Humanitarian aid organizations direct programs at reducing health risks, but there appears to be a lack of health promotion programming to educate adolescents about prevention and engage them in health promoting behaviours. It would be difficult to develop relevant programming before researching the CMHL of adolescents in Burma/Myanmar and involving them in participatory research. As previously mentioned, based on a report by the Myanmar Ministry of Health, "most young people in Myanmar have misconceptions about HIV and a very small percentage know about prevention" (WHO, 2008). The known health issues and the gaps in the literature demonstrate a need for research into the presence of CMHL research in Burma/Myanmar high school students and research into how the theory of CMHL works in high school curriculum.

2.5.1 Summary

The limited research on the health outcomes of adolescents in Burma/Myanmar points to significant, negative health trends. Research from a wide variety of contexts around the world has connected critical, media, and health literacy to health outcomes and to individuals' abilities to take critical and purposeful action in their health and their communities. Adolescents in Burma/Myanmar are an underrepresented population in the research literature yet there are emerging theories which may be of help in examining the how critical, media, and health literacies have potential to affect this population's health outcomes.

The research presented in this chapter shows that adolescents around the world have similar developmental needs, and those needs include learning opportunities to

respond to and negotiate the multiple views and multiple meanings that they perceive and that are present in their social contexts. The research shows that critical, media, and health literacies have a significant bearing on how adolescents take control of their learning in ways that in turn help them develop and awareness of health and their capacities to think about, and take action, on issues of health relevant to their social contexts.

2.6 Chapter Summary and Chapter 3 Preview

This chapter situated this research study in the available research from the body of research in English language educational databases. The chapter presented (a) literature on which theoretical orientations of this study are based; (b) the conceptualizations of adolescence, health and literacy development; and (c) the research relevant to topic, purpose, and research questions of this study.

The empirical literature reviewed for this study included established theories of adolescence and emerging theoretical concepts for understanding and exploring literacies. There is a growing depth and breadth of research into literacies curriculum, but there is a lack of unifying theoretical frameworks to help facilitate international discourse about the related issues and unique situations of adolescents around the world. The literature presents gaps in information and understanding about the presence of critical, media, and health literacies in adolescents, especially adolescents situated in Burma/Myanmar.

In addition, there are gaps in explanations for how curriculum is designed to develop those capacities in an integrated pedagogy, based on empirically researched theoretical concepts, and in ways that supports the integration of adolescents' social contexts and their experiences of life worlds. More research studies need to be conducted

in order to begin to close these gaps and to understand the relationships to health status and health outcomes in adolescents in Burma/Myanmar.

The next chapter, chapter 3, describes the methodological assumptions, data collection methods, and methods of analysis for this study.

Chapter 3: Research Methodology

3.1 Introduction

This chapter describes how the purposes of qualitative research align with the purposes of this study. This study addresses contemporary problems of human attitudes, behaviours, and experiences relevant to health and literacy in an understudied population and setting.

First, the rationale for the research methodology is presented from the perspective of my philosophical assumptions, and from that perspective, the principles, methods and approaches of qualitative research methodology are discussed relative to my research purposes. Second, the chapter presents the research design. The research design is described by an overview of the research participants and setting and the specific procedures for recruitment of participants, data collection, and data analysis. Third, the model of interpretive validity is presented, followed by a discussion of the limitations of the research design. The chapter closes with a summary of chapter 3 and a preview of chapter 4.

3.2 Rationale for Research Methodology

This study is based on principles and methods developed from qualitative research methodologies in general and case study methodologies in particular. A qualitative methodology represents an "account of social reality or some component of it

that extends further than what has been empirically investigated" and an array of methods and approaches, which are relative to that account of reality, for gathering evidence (Hess-Biber & Leavy, 2011, p. 5). The applicability of qualitative methodologies flows from the needs to investigate questions about *how* human attitudes, behaviours, and experiences manifest in society (Guest, Namey, & Mitchell, 2013; Yin, 2009) and to conduct research in ways which produce "categorical information that can be systematically collected and presented in narrative form" (Yin, 2012, p. 11) in order to extend the breadth of research evidence on a topic and "go behind the statistics to understand the issue " (Hess-Biber & Leavy, 2011, p. 3). Qualitative and case study research methodologies are characterized by principles, methods, and approaches to data collection and data analysis which address those needs and support my axiological, ontological and epistemological positions for this study.

3.2.1 Qualitative Research Methodology

The principles of qualitative research methodology lead to particular data collection and analysis methods and approaches for observing and describing the "social meanings that people attribute to their experiences, circumstances, and situations, as well as the meanings people embed into texts and other objects" (Hess-Biber & Leavy, 2011, p. 4). Miles and Huberman (1994) emphasize the value of qualitative data in describing meanings and realities by focusing on "natural occurring, ordinary events in natural settings [and collecting the data] in close proximity to a specific situation" (p. 10). The resulting narrative detail of qualitative data is valuable for exploration and analysis of emerging problems and for examining how theoretical propositions may help to explain and address the problems (Guest, Namey, & Mitchell, 2013; Miles & Huberman, 1994).

This approach to research is based on particular ontological, epistemological, and axiological positions.

3.1.1.1 Researcher's Influence

The axiological position of qualitative research methodology is characterized by the idea that a researcher's beliefs and values inform the purposes and methods of a research study, and therefore a researcher's beliefs and values influence research participants' expressions and actions in a study (Miles & Huberman, 1994; Denzin & Lincoln, 2005). Based on my knowledge and experience I value the relationship between literacies and health, and I believe that CMHL capacities can help young people examine their own attitudes, behaviours, and elements of their health determinants in order to develop an empowered stance to change and improve their health.

Health determinants are composed of conditional elements in social and economic environments, physical environments, and individual characteristics such as attitudes and behaviours (WHO, 2013). If my attitude is that critical literacies and health are valuable as individual, social and economic resources, and if my policy is to facilitate research and education to help young people improve their self-determined health conditions, then I need a theory around which to orient that policy.

In this study, my belief is that individuals can improve health through the development of critical literacies. That belief is evident in my choice of CMHL as a theoretical framework for this research study and my choice of qualitative, interpretative, and inductive research methods to balance the influence of my axiological position with the uniqueness of the data collected and analyzed in this study. It may also influence my data collection, analysis and findings; however I have engaged in reflexivity, "where the

researcher remains in an asking or questioning stance" in a social setting (Miles & Huberman, 1994, p. 36).

3.1.1.2 Interpretation of Ontological and Epistemological Perspectives

The research questions of this study seek to build a descriptive account of literacy practices in a unique setting. The descriptive account is intended to convey an interpretation of the meanings research participants attribute to the experiences, circumstances, situations, and texts relevant to literacies.

As explained by Walsham (1993), qualitative research, when based on an interpretive approach, requires procedures to gather contextualized data because the research begins from

> the position that our knowledge of reality, including the domain of human action, is a social construction by human actors and that this applies equally to researchers. Thus there is no objective reality which can be discovered by researchers and replicated by others, in contrast to the assumptions of positivist science. (p. 5)

Therefore interpretive methods seek to reveal multiple realities expressed by research participants as opposed to seeking one objective reality, while also recognizing that the researcher's axiological position will influence how the findings are viewed and reported (Guest, Namey, & Mitchell, 2013).

The interpretive approach to data collection and analysis (Geertz, 1973) searches for sociopolitical meanings embedded in narrative data and observed behaviours (Denzin & Lincoln, 2005; Guest, Namey, & Mitchell, 2013; Miles & Huberman, 1994). Research inquiries of this nature are characterized by the ontological recognition that multiple

realities are perceived through individual, subjective experiences (Denzin & Lincoln, 2005; Husserl, 1970) and that those experiences are mediated by contextual conditions of social worlds "constantly being constructed through group interactions" (Hess-Biber & Leavy, 2011, p.5). From this view, a qualitative research design must account for the study's context in terms of the individual's expression of their perception of experience within observable social worlds.

Social worlds have been conceptualized as the convergence of individual perceptions and social contexts. Social contexts have been conceptualized as fields of participation that individuals influence and that individuals are influenced by, due to some degree of acquisition or transmission of attitudes, behaviours, or experience (Rogoff, 2003). Individuals are situated by the roles they enact in social contexts (Rogoff, 2003; Vygotsky, 1978) and individual perceptions are positioned by *life worlds* from which individuals directly perceive their practical experiences (Habermas, 1987). The recognition that life worlds are part of subjective experiences in social contexts is relevant to this study because the perceptions that individuals express about life worlds may help to explain behaviour in social situations and may have the potential to affect how knowledge is constructed and becomes known to an individual. As a qualitative researcher, I too have a life world which overlaps the boundaries of the school classroom and informs my role as a researcher and my interpretation of the data.

The epistemological view that knowledge is socially conditioned (Guba & Lincoln, 1994) based on subjective experiences (Freire, 2000) and situated in external worlds (Foucault, 1979) leads to a need to examine empirical data utilizing inductive analysis methods (Guest, Namey, & Mitchell, 2013; Hess-Biber & Leavy, 2011).

Inductive approaches are relevant to the study of contemporary problems which seek to understand "what is happening [in] its real-world context" (Yin, 2012, p. 5). This involves data collection methods that are implemented in natural settings to directly observe human behaviour, opinion and experience from multiple sources (Guest, Namey, & Mitchell, 2013; Yin, 2012) and data analysis methods that are implemented to reveal, or induce, "the structure and content of themes" (Guest, Namey, & Mitchell, 2013, p. 13) as expressed from the various perspectives of the research participants. As presented by Braun & Clarke (2006), a *theme*

> captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set...Ideally there will be a number of instances of the theme across the data set, but more instances do not necessarily mean the theme itself is more crucial...A theme might be given considerable space in some data items, and little or none in others. (Braun & Clarke, 2006, p. 10)

Seeking to reveal the structure and content of themes from various perspectives is supported by dialogical data collection methods. Interview formats serve as data collection methods for gathering descriptive data through dialogical processes and open-ended questions (Guest, Namey, & Mitchell, 2013; Stake, 1995). Interview dialogues, as semi-structured conversations, provide both the researcher and the research participants with opportunities to explain and clarify what is said or visualized about the topic of the study and relevant social contexts and life worlds. In addition to interviews, socially constructed artifacts (Yin, 2012) such as web pages convey meanings which may be discussed through dialogues with research participants. Dialogues serve the purpose of

gathering data and uncovering contextual, sociopolitical meaning of attitudes, behaviour and experience, aiming for “a reasonable approximation of reality that ties closely to what is observed” (Guest, Namey, & Mitchell, 2013, p. 7.)

The inductive approach to data analysis is an interpretive technique on the part of the researcher for building thematic descriptions and explanations from the data. An inductive approach is based on the deconstruction and critique of meanings, which are found by the researcher to be constructed in data, in order to “generate theory directly out of the data” (Hess-Biber & Leavy, 2011, p. 5). The technique serves the process of deconstructing the meanings interpreted in the data in order to uncover and encode concepts and processes (Miles & Huberman, 1994) and “shifting fields of social power” (Hess-Biber & Leavy, 2011, p. 5) which are described and emphasized by the research participants. The inductive approach also serves the process of analyzing relationships and discontinuities between the coded data segments and developing more general categories to group coded segments. Thus induction leads to thematic interpretations which may illuminate or challenge the research questions and theoretical basis of the inquiry.

As presented earlier, in chapter 2, the context and contemporary research problem of this study has shown to be largely absent from the research literature. The gap in research literature, combined with my serendipitous opportunity to live and research health literacy of young people in the relatively isolated context of Burma/Myanmar, calls for a qualitative research methodology in order to explore further the study’s research questions.

3.1.2 Qualitative Case Study Methodology

As a qualitative research methodology, qualitative case study offers a particular theoretical perspective on a research problem. Case study is "an empirical inquiry about a contemporary phenomenon (e.g., a "case"), set within its real-world context – especially [useful] when the boundaries between phenomenon and context are not clearly evident" (Yin, 2009, p. 18). From this perspective, qualitative case study methodology is based on the principle that "examining the context and other complex conditions related to the case(s) being studied are integral to understanding the case(s)" (Yin, 2012, p. 4). Understanding the case based on empirical data requires "in-depth focus" on the case, covering "a wide range of contextual…conditions" over an extended time period and in "natural settings" (Yin, 2012, pp. 4-5). When variables for studying a particular research problem are not developed for a particular population and the relevant contextual conditions are not well described in the literature, such an approach is valuable for gathering data and forming a base of new knowledge.

The procedural features of qualitative case study naturally follow from these principles. The procedural methods are designed to question, observe, and analyze the unique qualities of interest directly from a particular population (Guest, Namey, & Mitchell, 2013; Yin, 2009). In order to bring an in-depth focus on the topic of a case, the case is defined by single or multiple cases of the phenomenon (VanWynsberghe & Khan, 2007; Yin, 2009). Further specifications bound a case study by time, relevant population and setting, type of empirical evidence to be collected from multiple sources in the population, and by approaches to data collection and analysis (Stake, 1995; Yin, 2009). In addition, a case is defined by a unit of analysis in order to focus the case on a

proposition which will narrow the relevant data for collection and analysis. This narrowing of focus is aimed to keep the case study within feasible limits (Yin, 2009) and support the researcher to examine theoretical constructs and "learn new lessons based on what is uncovered or constructed during data collection and analysis in the case study" (VanWynsberghe & Khan, 2007, p. 84).

3.3 Research Design

This study is designed as a qualitative case study for the purpose of inquiring into and describing how CMHL operates in curriculum and is expressed by adolescents. In order to bring an in-depth focus this research presents a single case comprised of a group of high school students engaged in a media-health curriculum exploring themes of mental health. Following previous case study research findings, a single case was chosen because the research purpose is to develop a descriptive understanding of the research problem (Yin, 2012), and research participation was limited to one group of students because "[e]fforts to perform broad analysis with large numbers of participants can reduce the effectiveness of case study as it might come at the expense of detailed description" (VanWynsberghe & Khan, 2007).

The case is bounded by a time period of 10 months and a population set within a private international high school in Burma/Myanmar. Research participants were identified as multiple sources from which to collect empirical evidence through face-to-face and online interview formats and through curriculum artifacts consisting of web paged designs. Data collection and analysis was approached from an interpretive perspective, and inductive data analysis was completed in a staged process of coding,

data reduction, and thematic analysis (Guest, Namey, & Mitchell, 2013; Miles & Huberman, 1994).

In addition, a unit of analysis is specified for the case in order to focus the case on a proposition about how critical literacy functions in the interwoven domains of media and health. The proposition is intended to reduce the risk of collecting superfluous data and "improve the efficiency and power of the analysis" (Miles & Huberman, 1994, p.35). The unit of analysis for this case study is the theoretical concept of CMHL (Wharf Higgins & Begoray, 2012) which provides propositions about attributes and process constructs for guiding an exploration of the case. As a unit of analysis the theoretical concept serves the instrumentation for gathering data from face-to-face interviews, online blog discussions, face-to-face group discussions, and web page designs. This narrowing of focus based on the unit of analysis is meant to keep the case study within feasible limits (Yin, 2009) and support the researcher in an exploration of theoretical constructs to "learn new lessons based on what is uncovered or constructed during data collection and analysis in the case study" (VanWynsberghe & Khan, 2007, p. 84). Table 1 *CMHL in Burma/Myanmar* summarizes the case, boundaries, and unit of analysis of this qualitative case study.

Table 1

CMHL in Burma/Myanmar

Case Study Feature	Specification
Case	A group of high school students engaged in a media-health curriculum exploring themes of mental health
Boundaries	August - May 2012, Burma/Myanmar, one high school, students ages 15 to 18, health and digital media educators
Unit of Analysis	Critical Media Health Literacy

The following sections describe the research design protocol. Figure 2 *Research design process* presents an overview of the protocol.

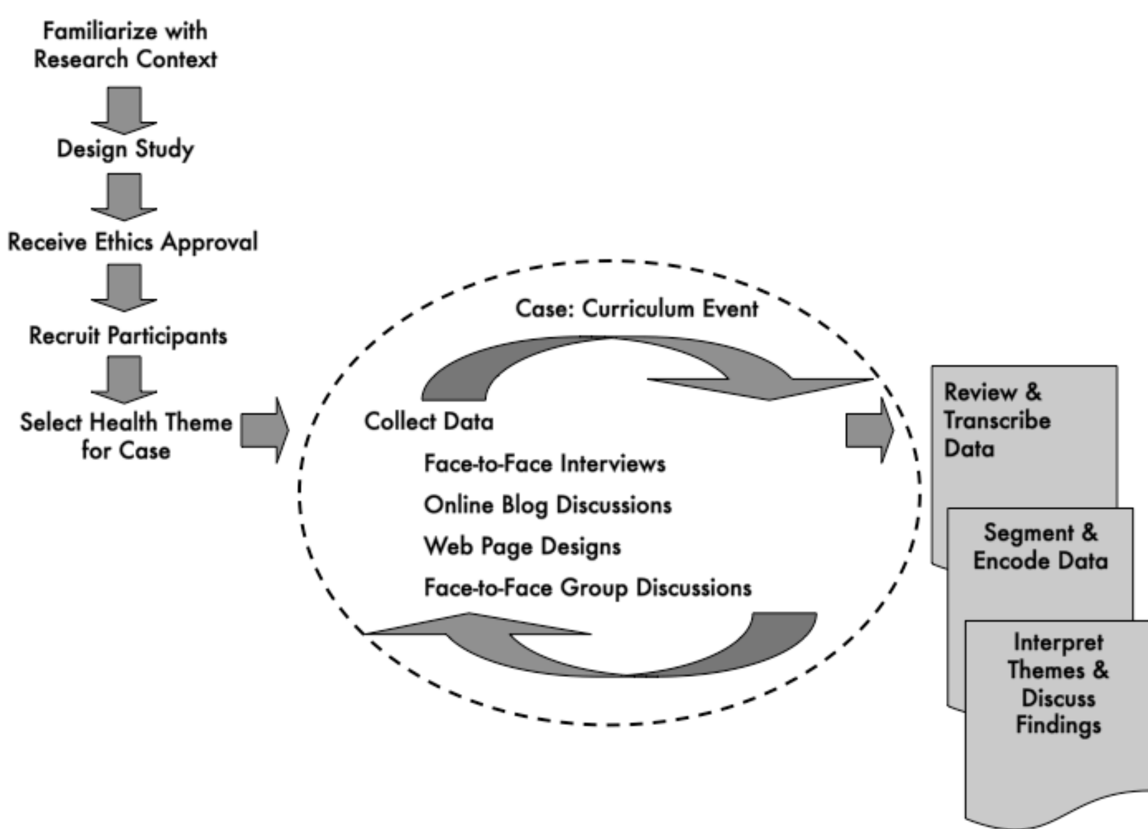

Figure 2. Research design process.

3.3.1 Research Population and Setting

This section presents an overview of the research participants and setting. The participants and setting are described based on my observations of daily life in and around the city of Yangon and my observations of the people and interactions in the private international school where this case study was conducted.

The research participants of this case study appear to be Western in certain cultural practices and consumer habits, such as in their dress, their cars, their use of English as an international language, and their use of smart phones for Internet access and for voice and text communications. At the same time the participants are also situated in other unique contexts that overlap with the generally Western contexts. Figure 3 *An afternoon in a Yangon neighborhood* presents an example scene on a side street in Yangon.

There are large gaps in living conditions between the participants in this study, who are connected to the economic processes of the established government, and the majority of citizens who are living in bare conditions, without safe water, power, or education and health services which would help them to become productive citizens of an emerging democracy. Even at the school where this study was conducted, and the tuition is about US$8,000 per year per student, the curriculum lacks civic education to help students understand the workings of democratic government and practice critical engagement in a civilian government.

Figure 3. An afternoon in a Yangon neighborhood.

The idea of being critical is tenuous given that thousands of citizens have been imprisoned for speaking about their beliefs and ideas over the past fifty years, during the time period when multiple military juntas that have controlled the government (BBC, 2012). Now there are two governments existing in Burma, the established military structure and the civilian government initiated in 2010. When Hillary Clinton visited Burma/Myanmar in late 2011, she conveyed international concerns about the government and argued for the military government to release political prisoners, legalize the right to organize political parties and hold public party meetings, and allow a parliamentary election by April 2012 (BBC, 2013). I watched the proceedings with great interest,

although all members of school staff were notified by the school director that we were not allowed to attend any events or to speak publically on or off campus about issues related to the April election. I was surprised by his dictum because although I knew the Western staff had to be cautious, I assumed his Western democratic background would influence his attitude toward the elections. But, I was more surprised by my observations of several of the Burmese teaching staff. When I asked the Burmese teaching assistant who participated in this study if she was following the issues and events of the election, she replied, “What election?” In addition, I observed no students talking about the election at school.

I wondered about the attitudes that created these responses in a setting where I saw many adults and students using mobile phones and accessing popular media. Access to popular media was no problem for the students who participated in this study and every participant had a cell phone, usually a smart phone with better Internet access than the school provided for the personal computers we used in class.

The Internet service at the school was channeled through a government service and many Internet sites were censored. Search results in Google would be listed as “Blocked.” This was an intermittent condition. Frequently, only government, university or new sites would be blocked. Less frequently, a majority of sites would be blocked or a message from the Burma/Myanmar military government would be displayed when an Internet browser was opened on a PC. As if from a scene in George Orwell’s *1984*, one such message was for the purpose of informing citizens that cell phone costs were changing. The message had to be acknowledged by selecting an on-screen button before the PC would be allowed to continue using the Internet browser software. It was unclear

whether blocked searches were the result of the government controls or the school controls. Often I was not able to access my email or the digital library from the University of Victoria web site because it was blocked. Sites for universities such as Stanford University or University of Toronto and news sites such as The New York Times or the Manchester Guardian were intermittently blocked. This situation continued during the length of my time in Yangon, although sites like YouTube were made available a month after I arrived, but with some content blocked, and most students were avid Facebook users. Facebook was not blocked from use during my stay in Yangon.

In one instance Facebook became an issue at the school. A group of students were engaged in bullying a classmate named Susan. They posted an anti-Susan link and many more students voted on Facebook that they did not like Susan and wrote very negative things about Susan's personality and body. (All names used here are pseudonyms.) Several members of the teaching staff from the U.S. and Canada were concerned, as the issue of bullying has taken a prominent place in many Western educational contexts. When I spoke with students about the Facebook event I was surprised to observe that not one of the twenty or so students involved, including Susan, were very upset about the event. In fact, they wanted to show me their Facebook pages and I saw many instances of that type of behaviour. The students were open and did not express embarrassment or remorsefulness.

Health topics not treated with such openness. Two of the Western teachers who had observed the apparent obesity, anorexia, and stress in students initiated a program to conduct seminars with students to discuss these issues. When the teachers consulted with Burmese staff members to try to understand the culture of health they found that many of

the topics they wished to discuss were taboos because they had to do with discussing bodily functions. Another session was designed to open a dialogue about sexual aggression in dating relationships. The Burmese teaching staff members who were consulted for a local cultural perspective explained that from their point of view discussions of sexual conduct would "just make the students to have more sex." This attitude carried through to the markets where no tampons or sexual health products were stocked because they were taboo as well. In contrast, the markets contained large stocks of skin-whitening creams and hair straighteners. This seemed a strange contrast from my Western experience in which both healthy biological functions of the human body and repressive forms of social vanity are supported openly by the consumer markets.

Consumer goods are not a problem for the participants of this study because they and their parents and guardians often travel outside Burma/Myanmar to places such as Bangkok and Singapore for shopping and banking. There were no banks in Burma/Yangon, except for the military government's bank, during the time I was conducting this study. People kept cash in their homes. In one instance, two large pickup trucks carried full loads of cash to a house not far from where I was living with my husband in a hotel apartment for US$1,200 per month, the typical cost of a two-room apartment in Yangon. The trucks carried the Burmese currency equivalent of $9M in cash for the purchaser of a house. The house was set on the shores of Inya Lake, just across the lake from where Aung San Suu Kyi lives where she spent many years under house arrest.

This type of wealth was not a surprise to the students who participated in this study and lived in such houses. Most of the students had access to the sudden wealth (Klein, 2012) that has become available to those with links to the military arm of the

government. The students were often living with one parent, alone, or with a member of their extended family, and the students were provided with servants, houses or apartments if they lived alone, and many of the male students had cars. Figure 4 *Driving to high school* shows students' cars parked in front of the school. The car is parked just outside the blue guarded gates of the school and next to the school's yellow, oil-burning electricity generator. Figure 5 *Cars and neighborhoods of students* shows students' cars being admired in a newly built neighborhood in Yangon.

Figure 4. Driving to high school.

Figure 5. Cars and neighborhoods of students.

Some of the male students often drove for entertainment at night on Yangon's winding rough roads. The students talked openly of their driving events and took many photos with their smart phones. One male student of the high school who was from Mandalay, and who lived alone in Yangon, crashed his car and died one night early in the school year when I was living in Yangon. The Burmese teaching assistant told me she was not surprised that the student crashed his car and died because "ghosts" are known to be at the place in the road where the students died. Figure 6 *Driving for entertainment* shows a car that was crashed by a student. His parents provided a new car for him after the crash.

Figure 6. Driving for entertainment.

Directly next to many of the new concrete mansions containing elevators and their own electricity generators is the other city of dirt floor huts. Few people live in the government's concrete apartment buildings and many more people live in the hand built huts made from wood, wood which appears to be scarcer and scarcer in the vicinity of Yangon. Figure 7 *Customary home* shows a common example of the type of homes in and around Yangon.

Figure 7. Customary home.

Those who live in shelters of the type shown in Figure 7 live without electricity, sanitation, and safe water. Most people in Burma/Myanmar live by agriculture (Suu Kyi, 1995). Their homes are shared with their livestock and the garbage and human waste mounts around the home. I observed that many people living in these conditions appeared lethargic and malnourished.

The neighborhoods were often crowded and some houses were on the very edge of streets and intersections. On more than one occasion I witnessed domestic violence as I walked on a street, once seeing a man beating a woman and a child beating another child in front of their home, a plastic and bamboo hut on a street corner. A Burmese man who

worked as a taxi driver for me told me that many families in Yangon live on about US$ 4 per week, not enough to feed the family and not enough to care for their health. Public health in Burma/Myanmar is largely taken care of by non-governmental organizations and private citizens who open clinics for their fellow citizens. Figure 8 *A free health clinic* shows a photo of a free health clinic operated by Burmese health professionals in a neighborhood in Yangon. The doctor who leads the operation of this clinic expressed a view of health as a social resource and his strong motivation to help the health and political conditions of his fellow citizens. During a visit to a Burmese-run free clinic several weeks before the April 2012 election, one of the health professionals expressed a concern with the need for people to vote in the coming election in order to establish their representation in government through the National League for Democracy, the party formed by Aung San Suu Kyi and her colleagues in 1990 (Suu Kyi, 1995, p. 276).

Figure 8. A free health clinic.

Myanmar Times, an online and print newspaper that has been produced legally in Burma/Myanmar and risen to a respected status in the region since a civilian government structure was added to the military government structure in 2011 (BBC, 2012), has reported that youth are longing for change and are the key to change in Burma/Myanmar (Myanmar Times, 2012). This call to youth to participate in civic government does not seem to be supported by the educational systems. The local publically funded schools that I visited did not teach about democracy or citizenship.

Some of the students at the school where I worked in Yangon volunteered to teach English to students in a local public school through a program organized by a teachers from the US and Canada. The students of the public school met on the weekend to

participate in the English classes. The learning was focused on functional literacies of reading, writing, listening and speaking in English. The students from the public school appeared to eagerly accept the books and writing tools and the opportunity to learn with the students of the private school.

The students who attend the private Burmese owned English language high school where this case study was conducted are mainly of Burmese or Burmese-Chinese cultural backgrounds. The student population at the high school is about 250. About 5% of students are from South Korea, Pakistan, Singapore, or the US. Of the students who participated in this study, 18 were of Burmese and Chinese families. One student was from Singapore and one from Thailand. The students are economically situated such that their families can pay the US$8,000 annual tuition plus the cost of tutors. Burmese students, except for one participant, are required by their parents to attend ‘tuitions’. In these daily sessions the students are taught subjects such as mathematics and Mandarin, primarily by Burmese tutors, and by what is described by rote methods of drill and memorization. For the students in grades 11 and 12, the tuitions include session to prepare for exams such as Advanced Placement Chemistry and the SAT Subject Tests. I observed from several students’ conversations that English international schooling was a way to get into a US university, or as second level choice, a university in United Kingdom, Australia, or Canada.

3.3.2 Recruitment Procedures

Once the certificate of approval and permission to conduct research was granted from the University of Victoria’s Human Ethics Review Board on December 19, 2011 (Appendix A), recruitment for my project began. No postal service existed in

Burma/Myanmar at the time of this study, so recruitment was handled in person at the high school which served as the site of the case study. In early January 2012 I met face-to-face with the school principal to review a summary of the research purpose and plan (Appendix B), discuss the recruitment and consent process for students and school staff, and confirm approval to conduct research in the school. After reviewing and discussing the research plan the principal confirmed approval to conduct the case study at the high school.

3.2.2.1 Recruitment of Health and Digital Media Educators

Upon receiving approval from the principal, I met separately with three staff members of the school whom I had purposively selected (Patton, 2002; Yin, 2012) based on my observations of their interest and activities in promoting the health of the high school students. Based on my observations, these three educators, who were all women, were the most active contributors to health promoting activities for the high school students, and their contributions were based on what they perceived to be the unique health issues of these students. Upon presenting a letter outlining the research project and the consent form (Appendix C), I received consent to participate from the American high school social-emotional counselor, the Canadian physical education teacher, and the Burmese teaching assistant with whom I taught the high school digital media courses.

The Burmese teaching assistant had been working at the school for five years since she was about thirty years old. She had developed a rapport with many of the high school students and was interested and able to share information about Burmese culture with me. She had lived in Yangon all her life, except for a five-year period when she attended university in London, UK. In addition to her role in supporting the digital media

courses, she had supported the social-emotional counselor during the previous academic year to design and facilitate health education sessions.

The social-emotional counselor arrived in Yangon the previous academic year and was in her second year as a counselor for the school. She had been teaching and counseling in international schools for over thirty years, in countries of Africa and Asia. In her role at the school in Yangon, she was responsible for counseling students from kindergarten to grade twelve, and she also counseled staff. During the previous academic year she developed knowledge about the needs of the students, and as a result had observed the lack of health education curriculum at the school. Based on her observations of students' need to empower themselves in relationships, she took the initiative to design and facilitate sessions with students to develop capacities for dialogue with students about the health issues that she observed were of concern to them. Issues spanned physical and mental health, including emotional trauma from the experiences of violence and sexual abuse in the students' homes to self-imposed violence and risk behaviour enacted by driving at high speeds during the night on Yangon's rough and twisting roads. The health education sessions which she facilitated were aimed at the development of empowerment, in terms of developing the students' capacity to reflect on their life contexts, to build confidence to voice their concerns affecting health, and to help them take steps to improve their mental and physical health.

The physical education teacher recruited for this study arrived in Yangon and began teaching at the school at the same time as I did, and she brought with her an interest in adding health topics to school's curriculum. In her first months of teaching she observed the gaps between the school's mission statement about health, the school's lack

of a health curriculum, and the apparent health needs of students. As a physical education teacher she developed relationships with students that shed light on issues of sexual reproductive health in the male and female student population and issues of nutrition, bulimia, and anorexia in the female students. As a result of the lack of health curriculum at the school, she took steps to acquire health materials and developed curriculum processes for students to explore these health issues. Her efforts were focused on helping the students to reflect on their daily choices about health and to build a caring attitude toward their minds and bodies. The teacher and social emotional counselor participants were recruited to provide contextual information and in-school support for conducting this case study.

3.2.2.2 Recruitment of Students

I asked the social-emotional counselor to assist me with the recruitment and consent process for the 22 students enrolled in the media-health course scheduled for January to May 2012 at the high school. The student recruitment letters and consent forms were reviewed in person during the information session with the potential student research participants. The purpose of the information session was to explain and discuss the background and my motivations for the study, the research activities, and the consent process of the study. Paper copies of the English language version (Appendix D) and a Burmese language version (Appendix E) of the forms were distributed and explained. The students were given time to read the letter and to discuss questions afterward with each other, the social emotional counselor, the physical education teacher, the teaching assistant, and me. Furthermore, the students were encouraged to take the forms home to read with their parents.

I left the session and then the social emotional counselor facilitated the collection and confidential storage of consent forms from that point until May 30, 2012. Thus I was unaware of which students had consented to be research participants until May 2012, after the course in which data collection took place was complete and grades were finalized. At that time I reviewed the consent forms and began the process of deleting all data which was generated from the two students who had not consented to participate in the case study.

Of the 20 students who consented to participate in the case study, 15 were in grade nine, two were in grade eleven, and three were in grade twelve. Ten students were female in gender and ten were male in gender. The data from these students was utilized to address my research question.

3.2.3 Data Collection Procedures

Consistent with qualitative case study design (Yin, 2012) multiple methods were utilized to gather empirical evidence from multiple sources. Data for this case study was gathered through face-to-face interviews, online blog discussions, face-to-face group discussions, and web page designs. All data collection was conducted in the English language, consistent with the language of the school context. Table 2 *Data Collection Methods by Source* presents an overview of the data collection methods utilized for each type of data source.

Table 2

Data Collection Methods by Source.

	Data Source	
Data Collection Method	Student Participants	Teacher Participants
Face to Face Interviews	Yes	Yes
Online Blog Discussions	Yes	Yes
Face to Face Group Discussions	Yes	Yes
Web Page Designs	Yes	No

3.2.3.1 Face-to-Face Interviews

The three research participants from the school staff and five students were identified for initial interviews. Interviews with staff provided me with background about the students and school context, while the data from students were collected for the purposes of addressing the research question. Interviews were conducted at the school, in private rooms, during school hours, and at times that the research participants chose. Face-to-face interviewing was conducted from February through March 2012. A total of eight interviews were conducted. Two of the interviews were conducted with multiple student participants who chose to be interviewed at the same time.

The intent of the interviews was to gain a perspective on health for this population, to assess the relevance of critical media health literacy to the student participants and context, and to potentially produce multiple case studies. Due to the student participants' limited time available for face-to-face interviews the data from interviews was utilized to inform the brainstorming session in which participants chose mental health as the topic for the curriculum event, and the data from interviews was

analyzed along with the data resulting from the other data collection methods which were also framed by the concept of critical media health literacy.

A set of open-ended questions was utilized to guide the interviews. Table 3 *Alignment of Questions with Constructs of Health Literacy* presents the congruence of face-to-face interview questions and existing theoretical propositions. Prior to follow up interviews, I reviewed transcript notes to identify an individual's points of emphasis in order to prepare follow up questions (Yin, 2009).

Research participants had consented to be video and audio recorded during interviews; however, I chose to conduct the first few interviews without digital audio technology. My prolonged engagement with the research participants in the school setting between August 2011 and the start of the interview process in January 2012 had an unexpected effect on me. I felt less inclined to take for granted that video or audio recording would be acceptable for the students and teachers while talking about their personal attitudes and perspectives on health, especially for the Burmese students and teaching assistant, since my informal observations of attitudes toward health issues indicated that many health topics were considered taboo for public conversation in this social setting.

Deciding not to do digital audio or video recording for some of the interviews was an intuitive choice on my part, despite the students' apparent comfort with using smart phones to record audio and video of themselves. My choice was also informed by the fact that for the first individual interview, two of the student participants chose to meet with me at the same time. It seemed they were unsure of what it would be like to be interviewed and felt uncomfortable.

Having formed some relationship with the students and teaching assistant, I relied on taking hand written notes in the first few interviews and observed during the interview their growing comfort with speaking about their health concepts and literacies practices. I knew, because I had asked the students during the recruitment session, that none of the students had taken part in a research project before this one. If the participants' apparent comfort with the interview process was relaxed I used the software package *GarageBand* on my personal laptop computer to digitally record an audio transcript of an interview.

Table 3

Alignment of Questions with Constructs of Health Literacy.

Theorists	Constructs of Health Literacy	Research Questions	Interview Questions
Conceptual framework for critical media health literacy (Begoray, Cimon & Wharf-Higgins, 2010, p. 26); Media Health Literacy (Levin-Zamir, Lemish & Gofin, 2011, p. 324)	Internal influences, Personal/socio-demographic characteristics	1. What are the participants' demographic attributes?	a. What is your age? b. How long have you been attending this school? c. What is your nationality? d. What is your parents' ethnicity? e. What is your parents' education/profession? f. What is your living situation? E.g., with mother, with grandparents, independent.
Conceptual Model of Health Literacy as an Asset (Nutbeam, 2008, p, 2076); Conceptual framework for critical media health literacy (Begoray, Cimon & Wharf-Higgins, 2010, p. 26); Media Health Literacy (Levin-Zamir, Lemish & Gofin, 2011, p. 324); New Literacies (Lankshear & Noble, 2011, p. 33)	Developed knowledge and capability, participation in social norms and practices, changed health behaviours, attitudes, external influences, skills in identifying, understanding and assessing potential influence of health messages, self-reported health status, interacting with literacies situated in social contexts	2. What is the participants' knowledge of health?	a. How do you describe 'health'? Why? b. How do you describe your health? (At this point, begin replacing 'health' with descriptors given by interviewee if appropriate) c. Do you think about your health? d. Do you think your ideas about health are affected by friends/family/media, e.g., information on the Internet or discussions on social websites? If so, how? Why?
	Skills in negotiation and self management, access, identify, understand, and assess influence of sources of health information, critique relevance to adolescence, interacting with literacies situated in social contexts	3. How do participants access, evaluate and understand information about health?	a. How do you learn about health? b. Where does the information come from? c. How do you decide if the information is valid or important for you? d. How do you decide if the information is relevant for someone in your stage of life?
	Skills in social organization and advocacy for individual and community benefit, developed knowledge and capability to apply it, attitudes, communicate health messages, awareness of influence and intention to take action, interacting with literacies situated in social contexts	4. How do participants communicate about health and advocate for the benefit of their own health and the health of their friends and family?	a. If you learn something about a health issue, do you share it? If so, why? If so, how do you share it? b. Do you do anything differently because of what you learn? Why? c. How do you think you can influence your health? Why? d. Do you use what you learn to do anything on purpose to take care of your health? If so, how? Why? e. Do you think you have any influence over the health of friends/family members? If so, how? Why? f. Do you use what you learn to try to inform or influence friends/family members to do something about their health? If so, how? Why?
	Developed knowledge and capability to apply it, changed health behaviours, engagement in social action for health, participation in social norms and practices, attitudes, communicate, health empowerment, interacting with literacies situated in social contexts	5. What health outcomes have been realized by the participants as a result of the their learning about health issues?	a. Have you learned anything in the past that helped you to do something about a personal health concern or issue? If so, what was it? b. Have you learned anything in the past that helped you to help a friend/family member with a health concern or issue? If so, what was it?
	Skills in negotiation and self management, participation in social norms and practices, attitudes, identification, critical analysis, and awareness of the influences of health messages, interacting with literacies situated in social contexts	6. What external influences do the participants believe to be significant to their ideas and behaviours around health?	a. Who or what do you think influences you ideas of health? Why? b. What do you think makes you change your ideas of health? Why? c. What makes you change the things you do that affect your health? Why?

3.2.3.2 Online Blog Discussions

Social media blog posts provided an additional source for data between March and May 2012. Blogs were a way for research participants to respond to open-ended questions, and if desired, pose their own questions and comments on blogs by fellow research participants. I posted open-ended questions as prompts for research participants to engage in the dialogue threads of the online blog. These questions were posed to explore the topic of *mental health*, a theme which was chosen by the students as the focus of their activities in the digital media course. The questions were also intended to explore propositions about the relationships between critical literacy, media, and health, based on the theoretical concept of CMHL (Wharf Higgins & Begoray, 2012). The online blog utilized a semi structured protocol (Yin, 2009) consisting of seven questions: Do you think about your mental health? How do you think your ideas of mental health are affected by your friends and family? How do you think your ideas about mental health are affected by your online reading and conversations, such as on news websites or Facebook? How do you decide what information to use from websites? Have you ever decided to change your behaviour because of something you saw in a website, television program, movie, or sports event? If so, why did you try to change?

3.2.3.3 Web Page Designs

Web page designs created by student research participants served as primary documentation (Stake, 2005; Yin, 2009) about the student participants' expressions of CMHL and concepts of mental health. The web page designs were potentially "insightful into cultural features" of the case and "technical operations" (Yin, 2009, p. 102)

describing how student participants expressed CMHL through this data collection method. Before beginning the technology lessons and the design process for the web designs, I conducted a brainstorming session with the students, as a whole-class group, to find a health topic of interest to the students.

After discussing ideas for topics and the reasons why the topics were important to the students as members of the school community and their various social contexts, the students were asked to explore specific themes based on their individual interests and to choose a theme for their individual web page design project. I guided students to design their web pages using information from online sources, their own subjective and experiential attitudes, beliefs and opinions on the topic, as well as using ideas for communications about the topic, such as would be designed as questions, an interview, or images as part of the web page. A student was free to change their individually chosen topic, provided first that the topic related to the general topic of 'mental health' chosen by the class as a whole and second that the student would be ready with a draft web page design for the face-to-face group dialogues. Students were provided with a web page design rubric (Appendix F) covering the technology and graphic design requirements of the course, as well as guidelines for their web designs based on the theoretical concept of CMHL. A digital image of each web page design was recorded in a digital document in order to be ready for data analysis.

3.2.3.4 Face-to-Face Group Discussions

Once in April and during two class sessions in May 2012, each student presented their web page design and helped to facilitate a discussion about their online inquiry into their chosen mental health issue. After a student presented their web page design, I helped the student to facilitate a discussion, based on a focus group format (Yin, 2009), in which all students had the chance to ask questions, comment, and critique the topic of the web page and the web page design. The teacher research participants supported the process by commenting and asking for clarification from the student participants.

I recorded my observations with hand written notes during the April session and used digital audio recording technology for the May session. As previously explained, I chose to forgo videotaping due to my sense that student research participants would not feel comfortable being video recorded during presentations. I had found that most of the students were unaccustomed to giving presentations and participating in face-to-face group discussions for which the purpose was to critique an idea. I did not audio record the first face-to-face group dialogue, but afterward asked the students if they would feel comfortable with audio recording of the second and third group dialogues. They agreed to the audio recording so the second and third group dialogues were digitally recorded using my laptop and the software, *GarageBand*.

The group dialogues served as direct observations of reality which "covers events in real time [and] in the context of [a] 'case'" (Yin, 2009, p. 102). I realized the event "may proceed differently because it is being observed" (Yin, 2009, p. 102), but the process was necessary for participants to have practice time to negotiate their meanings

and critique meanings in light of potentially competing contexts of all participants involved in the group dialogues. The dialogues were conducted to generate data which would be "insightful into interpersonal behaviours and motives" (Yin, 2009, p. 102) and provided yet another opportunity to gather descriptive data about the case.

3.3.3 Data Analysis Procedures

After data collection, I created transcripts from field notes and recordings of face-to-face interviews, online blog discussions, and face-to-face group dialogues. I reviewed each of the transcripts against the notes and audio recordings to check for errors and correct the data in which errors were found.

Data from transcripts and web page design images were reviewed by me and then analyzed to encode "units of meaning" (Miles & Huberman, 1994). Following procedures developed for qualitative data analysis by Miles and Huberman (1994) and Yin (2009) a list of topical codes (Bernard, 2006) was developed and was the first stage of data analysis. The topical codes were derived from the process of decoding the data. Topical codes are either *in vivo* codes based on the "words used by informants" (Bernard, 2006, p. 402) or synonymic codes formulated to represent a group of similar concepts interpreted from data segments (Miles & Huberman, 1994).

As a second stage of analysis, the data was reviewed again to identify data segments that fit into more than one code and refine the encoding of the data. As a result of this second stage of coding, the code list was refined and codes were grouped into categories that represented common code meanings. In addition, this stage of coding served the purpose of data reduction (Yin, 2009).

As a third stage of analysis, the categories were then used to group data to form a theme (Miles & Huberman, 1994). As defined earlier in this chapter, themes represent a pattern interpreted from the data. Stemming from the themes, *sub-themes* were interpreted and are used in the report of findings to give "structure to a particularly large and complex theme" (Braun & Clarke, 2006, p. 22). Themes might describe a prevailing attitude, perception of meaning, or contextual description about "what is happening or has happened" (Yin, 2012, p. 5) in relation to how the data is "befitting" (Yin, 2009, p. 15) or contradicting the unit of analysis. The thematically organized data was analyzed in order to explain and report on how the findings contradict and confirm the unit of analysis of the case study.

The third stage of analysis was conducted to determine presence of concepts of skilled capacities, expressions of empowerment, and competencies of engaged citizenship. These concepts were based on the attributes and processes of CMHL (Wharf Higgins & Begoray, 2012). Table 4 *Unit of Analysis* outlines the constructs used for this stage of the data analysis. The data from all sources was analyzed based on the descriptors of skilled capacities, expressions of empowerment, and engaged citizenship as shown in the second column of Table 4.

Table 4

Unit of Analysis

Categories for Encoding Data	Second Level Categories for Encoding Data
Skilled Capacities	Accessing information
	Understanding information
	Interpreting information
	Reflecting on information
	Critically interacting with media based on beliefs
	Critically interacting with media based on motivations
Expressions of Empowerment	Making an informed decision for the self
	Making an informed decision as part of a community
	Advocating for structural changes to enhance health of the self
	Advocating for structural changes to enhance health of a community
Competencies of Engaged Citizenship	Making productively healthy decisions in a public space
	Expressing personal health beliefs and motivations in a public space
	Expressing socially inclusive health beliefs
	Expressing a sense of social responsibility
	Acting on a belief of social responsibility

3.4 Validity

The model of interpretive validity (Altheide & Johnson, 1998) for this study is comprised of strategies to achieve a fair and clear picture of the validity of the study's finding and to mitigate the limitations of the research design.

3.4.1 Model of Interpretive Validity

The model of interpretive validity for this qualitative study is discussed based on the qualities of credibility, transferability, dependability, confirmability, and authenticity (Denzin & Lincoln, 2005). This study demonstrates all of these qualities.

3.3.1.1 Credibility

Credibility of qualitative research, like the internal validity of case studies (Yin 2009), is based on how well the socially constructed reality is described and how well it describes the view of participants in an effort to explore the research questions (Denzin & Lincoln, 2005). This case study was conducted during a prolonged engagement with

participants in their school setting. During the prolonged engagement in the setting, multiple participants were recruited as data sources and multiple methods of gathering data were utilized to develop qualitatively descriptive data about the research problem.

3.3.1.2 Transferability

Transferability, or external validity of case study (Yin, 2009), depends on how the audience interprets these findings in relation to a context familiar to them (Denzin & Lincoln, 2005). The process of analysis and the theoretical assumptions on which this study is based are described to help the audience assess transferability (Braun & Clarke, 2006). In this study, quotations and details are included to illustrate the findings so readers might make their own judgments of potential applicability (Yin, 2009) to other participants and settings. The findings of this study describe diverse interests and viewpoints as voiced by the participants (Altheide & Johnson, 1998) and later, in chapter 5, a discussion of the findings of this case study is presented in relation to findings in professional literature.

Stake argues, "the purpose of case study is not to represent the world, but to represent the case…the utility of case research to practitioners and policy makers is in its extension of experience" (Stake, 1995, p. 245). The specifics of the case open it up to an assessment of transferability (Yin, 2009), but by no means do I assume that transferability is probable by readers.

3.3.1.3 Dependability

Paralleling case study reliability (Yin, 2009), dependability deals with how well the theoretical framework for the study supported the collection of data to respond to the research questions (Denzin & Lincoln, 2005). The dependability of the findings is

supported by multiple sources of data. Finally, the report of my findings is linked by an audit trail to the primary data from several data collection methods, and the analysis and reported findings were developed by me with the support of discussions and feedback from my doctoral supervisory committee.

3.3.1.4 Confirmability

Confirmability depends on the detail available in qualitative data to describe the findings (Denzin & Lincoln, 2005). I took a purposeful and active role as a researcher to check for and discuss viewpoints and meanings with research participants during the face-to-face interviews and group discussions and to look for evidence which challenged the unit of analysis (Miles & Huberman, 1994). Yet the thematic analysis of the data is my own interpretation and recognizes that "themes reside in our heads from our thinking about our data and creating links as we understand them" (Ely, Vinz, Downing, & Anzul, 1997, pp. 205-6). I was constantly engaged in reflexivity and have revealed my research stance earlier in this chapter. The research design is based on my epistemological assumption that knowledge is constructed by individuals relative to time and social contexts, therefore confirmability is highly limited because though the research approach could be generally replicated, the participants, setting and conditions, and my interpretation cannot be replicated. Qualitative research has its strength in its depth of analysis of a particular situation.

3.3.1.5 Authenticity

From a critical theory perspective, authenticity (Denzin & Lincoln, 2005) deals with the degree to which the researcher realizes the ontological and epistemological aims of the research and the degree to which the research "provides a stimulus to action"

(Guba & Lincoln, 1994, p. 114). Several strategies supported these aims. I explicitly made my research interests and philosophical positions known to the research participants through the recruitment process, for example, I used multiple sources and methods for data, from which themes were inductively interpreted to give a fair account of findings (Barry, 2011). Thematic findings are linked to an audit trail back to the empirical data.

In order to express sensitivity to the contextual pressures of participants, I conducted interviews in private and in school offices or classrooms. Research participants chose the times when they wanted to take part in interviews, and whether they wanted to do the interview alone or with other participants. In gathering the data during the case study, I offered various opportunities for research participants to speak to their concerns. In a setting where student research participants were inclined to please the teacher and withhold opinions in class, I repeatedly modeled critique sessions in which the participants developed a willingness to feel safe enough to speak face-to-face and on a social media blog about their ideas and give feedback to other research participants.

3.4.2 Limitations of the Research Design

The research design is limited by its unique context and the exploratory nature of the inquiry into health literacy characteristics of an understudied population. The findings of this study are based on a one-year experience with people and in a setting very different from anything I have previously experienced, utilizing literacy concepts that have not been applied in this situation.

As an outsider, I tried to understand the experience of the research participants "to the extent possible, [but I] did not melt into the background and become a fully accepted

member of a culture other than [my] own" (Bernard, 2006, p. 390). Upon my arrival at the school where the research was conducted, I spoke with the administrators, teachers and students about my role as a researcher and my research interests. I was an outsider from a Western context, though the research participants were regularly exposed to Western ideas in their daily lives.

My time in Yangon occurred in 70 day segments: after each one, I had to leave the country, reapply for a working visa and then reenter the country for another 70 days. After a period of six months during which I began the process of learning about the setting and developing relationships with participants of this study, I spent five months conducting the study. This is a limited timeframe for research into health and literacies with adolescents in a country only beginning its ascent out of 50 years of isolation. A longitudinal study would provide more data and a chance to develop more familiarity with the participants and setting.

Another factor of timing that limits the study relates to the framework of the academic year. It was convenient to conduct a study with a group of adolescents who were already grouped in an educational course. The research design period was limited to the schedule of the school because participation depended on the students being on campus. Here again, a longitudinal research design would have provided opportunities for me to bridge the school divide, build more rounded relationships with the participants over time, and perhaps collect data from contexts outside the school.

Finally, the research design for case study is limited by the theoretical concepts that I chose to implement. While I chose the theoretical concept of CMHL and the related literacy theories that informed this study for their rigor and applicability to an interpretive

process of research, the theories are frameworks that are not neutral. The theories impose a view of a democratic process in which individuals are seen as empowered to change their worlds, and this view is a reflection of my intentions as a researcher and Westerner. That view is overlaid onto a somewhat different context in this research study. A theoretical proposition was part of the purpose of this case study, but it is nevertheless a limit to the research design. The limitations of the study's design will impose limitations on the findings.

3.5 Chapter Summary and Chapter 4 Preview

This chapter presented the research methodology for this study. The rationale for the use of a qualitative research methodology with a single descriptive case study was discussed. Data collection methods and tools were presented for the face-to-face interviews, online blog discussions, web page designs, and face-to-face group discussions. The chapter closed with a presentation of data analysis methods and a discussion of validity and design limitations.

Chapter 4 presents the study's findings from the exploration of the main research question, *How is CMHL expressed by this population?*

Chapter 4: Findings

4.1 Introduction

This chapter presents findings through themes which resulted from the data analysis. The themes are embedded in a narrative to describe my interpretations of the participants' underlying ideas, assumptions, and positions that shape the content of the data. As part of the presentation findings, connections are made to the research literature from chapter 2.

The research findings reported in this chapter are organized by theme and illustrated with quotations from data collected through the face-to-face-interviews, the online blog discussion, web page designs, and face-to-face group discussions.
Table 6 *Index of data collection events and data sources* is intended as a tool for the reader to use in cross referencing data to a data event and sources (Madison, 2011). The table lists the data collection sources and the dates on which the collection took place in order to provide both a view of sequencing for the data collection events and a reference back to the data sources for the evidence and quotes presented in chapter 4.

Table 5

Index of Data Collection Events and Data Sources

Data Collection Events and Index Codes		Date(s) of Data Collection Event	Research Participants of Data Collection Event
Index Code	Data Source		
IN1	Interview 1	February 7, 2012	S2, S11
IN2	Interview 2	February 8, 2012	S20
IN3	Interview 3	Febraury 10, 2012	S11, S20
IN4	Interview 4	March 13, 2012	S13
IN5	Interview 5	March 15, 2012	S4
IN6	Interview 6	March 20, 2012	T21
IN7	Interview 7	March 26, 2012	T22
IN8	Interview 8	March 27, 2012	T23
BD	Online Blog Discussion	March 27 - May 11, 2012	S1-S20 and T21-T22
WP	Web Page Designs	May 11, 2012	S1-S20
GD1	Face to Face Group Discussion 1	April 27, 2012	S1-S20 and T21-T23
GD2	Face to Face Group Discussion 2	May 9, 2012	S1-S20 and T21-T22
GD2	Face to Face Group Discussion 3	May 11, 2012	S1-S20 and T21-T22

In order to protect research participants' anonymity in the reported findings, numerical codes are utilized as an indexing device (Bernard, 2006). The numerical codes relate quotations to research participants in the narrative description of findings.

As presented in chapter 3, I used a different set of indexed coded during data collection. While data collection was taking place, and before I knew which students had consented to contribute data to the study, I assigned randomly generated codes to students for use in online blog entries and to index the records of student data from face-to-face interviews, web page designs, and face-to-face group discussions. Once data collection was complete and I received access to the consent forms, I re-indexed the student data collected from the 20 out of 22 students who consented to participate in the study and destroyed the data collected from the 2 non-consenting students. After re-indexing, student research participant data uses codes from 1 to 20 in order to identify data collected from individual students. Teacher research participants are coded from 21 to 23. In summary, the indexes which appear next to quotes in this chapter, and which are listed

in Table 5 *Index of Data Collection Events and Data Sources* indicates the data source and participant. As outlined in the table, IN indicates that the data was collected through a face-to-face interview, BD indicates the Blog Discussion as the data source, WD indicates a web design as the data source, and GD indicates a group discussion as the data source. For example, IN1-S11 signifies the first interview event and student research participant 11. The quotes from research participants' blog discussions are presented as written and posted by the participants.

As described in chapter 3, *mental health* was chosen as a topic by the students during the class session that preceded the data collection process for online blog discussions, web page designs, and face-to-face group discussions. Through a process of social learning (Brown & Adler, 2008) *mental health* was then utilized as a generative topic for the web page designs in that each individual student was encouraged to choose a particular area of interest related to the topic of mental health in order to explore their particular topic through online resources and discuss the various topics in light of personal and social interests. As a natural outcome of inquiry, most of the students changed their topics or narrowed the focus of their topics during the time that the online blog discussion took place and between the time of the first and last blog and face-to-face group discussions. None of the quotations to illustrate themes have been 'corrected' in any way.

4.2 Results: Codes, Categories and Themes

Several code and categories arose from an analysis of the data collected from face-to-face individual interviews, online blog discussions, web page designs, and face-to-face group discussions to create three overarching themes: *optimism, anxiety,* and

taking action arose as themes in online and face-to-face talk, pieces of writing, and digital multimodal texts designed as web pages. While the data from interviews with teacher participants was utilized to prepare for and conduct this case study, it is the data from student participants which were analyzed to generate these themes in response to the research question. I use the term *themes* to indicate my interpretation of "patterns…within data, [which theorize] language as constitutive of meaning and meaning as social" (Braun & Clarke, 2006, p. 9).

Figure 9 *Thematic map* describes the themes that were interpreted from student data and which are discussed in this chapter. I interpret *optimism* as a confident attitude about health and future conditions of health, *anxiety* as feelings of uncertainty and unease about health, and *taking action* as motivated enactments of changes to improve health outcomes. The themes are organized in a thematic map (Braun & Clarke, 2006) to show how codes, identified *in vivo* by encoding the data, were interpreted into codes to describe categories of data. Spreadsheets were utilized to store, organize, and analyze data.

The encoding followed an *open coding* process (Stake, 1995) in which transcripts and web page content were read, re-read, logically segmented, and labeled to describe the main topics of each segment. After the first stage of encoding, each topically coded segment was grouped into one or more generalized category, and then categorically organized segments were grouped into one or more themes. In the third stage I chose one theme for each categorized segment; that is, I chose the theme I interpreted to be most dominant descriptor for data segments which had been classified into more than one category. I arrived at the interpretation of themes based on a choice of synonym or an

overarching classification. For example, a web page text describing both *anxiety* and *taking* action was grouped within the theme of *anxiety* because *anxiety* is the dominant theme of the text. The thematic map shows how the categories were organized into themes for presentation of the case study findings.

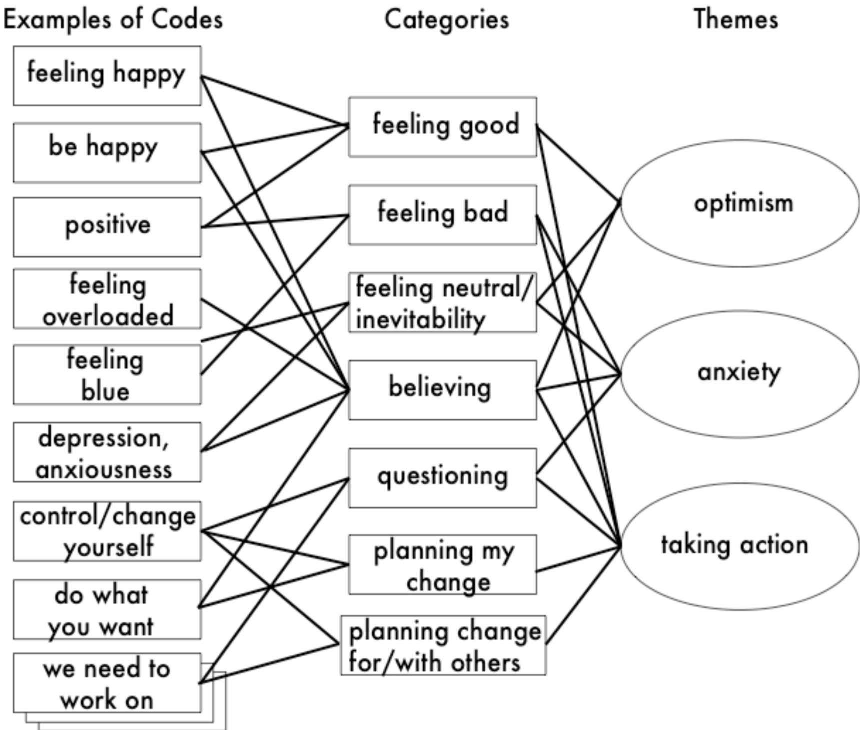

Figure 9. Thematic map.

4.2.1 Theme 1: Optimism

Examples of optimism are “feeling happy” (BD-S8), “be happy” (BD-S11), and feeling “positive” (BD-S15). The theme of optimism describes participants’ expressions of confidence and hopefulness about future health conditions and the role of digital online media in mental health.

Participants related health to an optimistic attitude and to the outcomes of emotional and physical health. In some instances, confidence is expressed about the future conditions of health based on beliefs. In a face-to-face interview, one student

described his concept of health as “a happy background and environment, peace” (IN1-S2). The participant concluded that his perspective on health, his enjoyment of playing sports and his general conditional requirements for maintaining good health were based on his self-identified position as a “Buddhist” seeing health as “why we’re here. God made us. It’s essential” (IN1-S2). Another participant stated, “Health is a possession everyone has and we have to maintain it…It’s like an objective in life” (IN1-S11). This attitude was echoed in a statement describing health as “something to keep you going in life” (IN4-S13).

Health is described by participants optimistically as feeling, being, and knowing as a basis for the future conditions for maintaining and improving health. A participant said he sees health as “how a person feels” and said he thinks about health because “to make health better I need physical activity to release stress” (IN2-S20). This optimistic attitude toward the possibility of future conditions of health is further described as “being and knowing what is good for you…knowledge, emotions, physically…knowing who you are is expressed in how you take care of yourself” (IN5-S4). When a participant was asked if he thought his ideas of health were affected by friends, family or media, he replied that his ideas are affected by “what I feel when I do things” and he plans what to do for is health based on his observation that he “feels good” when he “plays sports” (IN4-S13). In general, the five participants with whom face-to-face interviews were conducted spoke of confidence and hopefulness about their influence over their health outcomes.

Confidence in future actions appeared to relate to a sense of hopefulness in future health conditions. One participant described in his web page design, shown in Figure 10 *Web page design (WP-S16)*, that emotional health is feeling good about yourself and

having “good relationships” (WP-S16). He appropriated written, photo and graphic texts from other websites that he “related to” (GD2-S16), and he emphasized his use of colour, noting that the colour green symbolized for him “growing” and “good relationships” (GD2-S16).

Figure 10. Web page design (WP-S16).

Social media was described by some participants as a source of happy feelings and relationships. One participant posted to the blog that she “felt happy whenever good news came up on Facebook” (BD-S7). Online digital games present another social media tool that participants looked forward to playing because it made them feel happy. A participant described his positive feelings about his role in online activities as a “first person shooter” (WP-S1) in a Massively-Multiplayer-Online-Role-Playing-Game or

MOOG. Sections from the participant's web page design are shown in Figure 11 *Web page design (WP-S1)*.

Figure 11. Web page design (WP-S1).

The participant who created the web page shown above in Figure 11 described how his anonymous online role in an activity connects players from around the world and, for him, takes "every second of attention and …will result in a happy day" (WP-S1). The imagery of the web page design is constructed with personal writing and photos appropriated from other web pages, depicting young men enjoying video game play. The

research participant conveys optimism based on the interactions of his online character in a game "with real people in the real world" (WP-S1). When asked how he selected content to use for his evaluation of gaming as both a positive and negative influence on health he replied, "I chose this information from a research study…because I could related to it…I want to help my friends" (GD-S1).

In several instances, participants describe how they see online digital media in an generally optimistic way; however, they offer critically both pros and cons for health, and a way that affords an expression of an ideal self. In response to a question about the influence of social media activities on mental health, one participant wrote, "Using Facebook and other Internet associated sites are a daily habit for teens these ages…for some people Facebook is their ideal life. For example they pretend to be the person they really want to be" (BD-S11). Another participant described her critical view of digital online media:

> The media is a big influence that affects our lives and the way we perceive things in the world we live in, and I think it plays a big role in our perception of mental health. I am more aware of the benefits of having a healthy and stable mind and body, and am also aware of the negative sides and consequences of stress. This awareness helps me, and everyone else, have a healthier and safer life in the future. (BD-S6)

There is an indication in the above statement that digital social media is a universally helpful entity to which the participant relates. Another participant, responding to a question asking if interactions with online social media and websites could affect mental

health, responded with a critical line of thought and a statement about her preference for social media:

> I think the online news articles just give u information and ideas of what is happening in the world and it really couldn't effect to your mental health…Using Facebook is different. Some people think that they couldn't stay without using facebook everyday. They play, chat, post, comments, share and even they could act like they are an ideal person or someone…More or less it could effect our mental health by taking it seriously. There are both pros and cons in doing online reading and conversations. (BD-S3)

This comment shows that content may be more easily accepted by the participant based on the type of media that delivers the content, and in the above statement the participant describes the interactive social media activities as potentially affecting mental health more than a news website. She emphasized that personally experienced activities have the potential to affect her mental health. The participant describes how feelings are made known to friends and how this particular digital technology is structuring her constructions, e.g., by structured functions specific to the technology such as posting and sharing, yet the participant claims that the technology is neutral, providing both 'pros' and 'cons' for online interactions that are part of everyday.

Research participants appeared to choose online activities based a level of hopefulness and confidence that the activities will generate positive health outcomes, and it appears that for the research participants digital activities provide a perceived level of control over how to generate optimistic feelings. The online activities afford participants

ways to relate to friends, help friends, and "increase the amount of friends you have" (WP-S1).

The above examples show that meaning is constructed from the perspective of identities which are constructed in overlapping contexts and made up of the media used to represent human beings in the real world, the human beings themselves, and the digital online tools available for thinking, feeling, and doing online activities with virtual and real others.

The participant who, in the above blog comment (BD-S6), indicated the universally positive power of online digital media to help her and everyone else have a healthier life, designed her web page to help her peers achieve improved health outcomes. Her webpage design, shown in Figure 12 *Web page design (WP-S6),* demonstrates a construction based on health literacy and an optimistic attitude toward dealing with stress that she sees as unique to adolescents. Her title message and statements of advice convey her belief in the power of an individual to affect their emotions and attitudes. The design demonstrates her sense that she and others like her can realize motivation and autonomy in affecting future mental health conditions. She advises, "You can either change your situation or change your reaction…focus on what makes you feel calm and in control" (WP-S6).

Figure 12. Web page design (WP-S6).

Her demonstration of critical literacy in the web page content conveys a hopefulness and confidence that she and her peers can positively influence their situation of anxiety.

The optimistic attitudes expressed in texts suggest that motivation enhances autonomy and a sense of competence for achieving desired outcomes in relation to social determinants of health. Participants described their beliefs and critical literacy processes from the contexts of their real and digitally-mediated relationships, and optimism was shown as a condition for health and health literacy.

4.2.2 Theme 2: Anxiety

Anxiety was expressed by statements such as “We feel overloaded” (GD2-S17) and on blog comments as “feeling blue” (BD-S15) and “depression, guilt, anger, stress, anxiousness and denial” (BD-S5). Sixteen of the twenty participant web page designs which were presented and discussed in the first face-to-face group discussion had titles and content dealing in general with anxiety (WP-S2, S3, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17, S19), two dealt with promoting healthy relationships (WP-S4 and WP-S18), one with cyber addiction (WP-S20), and one with how online video games encourage good body image and bad habits (WP-S1). Content, beyond the very general web page titles, was not developed and the accompanying group discussion was not very active or descriptive.

By the time the final web pages were presented during the second group discussion, many of the titles and content about mental health issues had developed into specific and sometimes very personal assertions and evaluations of anxiety, and the group discussion was much more interactive amongst the participants. Data from the online blog discussion, final web page designs, and second group discussion showed a prevalence of expressions indicating a sense of unease and uncertainty about mental health outcomes, influenced by relationships and the use of digital online media.

Anxiety was described as a sense of unease and uncertainty about mental health outcomes as a result of relationships and the social conditions of relationships. A participant who described on the blog that he had relocated with his family many times, described feeling “isolated and having a breakdown” based on his frequently changing environment (BD-S16). Anxiety was also likened to depression. One participant designed

a web page to describe how he was “feeling kinda depressed” at the increased pressure on grades in high school, and he told his peers, “My parents are only happy when I have A’s” (GD2-S15). Several students shared his angst, stating that they were “sharing this academic stress” (GD2-S8). A participant added that the stress was increasing because, based on an informal survey of her friends, “7 out of 9 students have two tuitions a day and they’re three hours each” (GD2-S16). ‘Tuitions’ are after school classes, often conducted in the homes of the students, in which Burmese tutors teach the students their school subjects and prepare the students to take tests required for entrance to universities. The anxiety described by the participants suggests that adolescents’ transitional experiences affect anxiety in social contexts.

Academic pressure was described as a significant source of anxiety. Figure 13 *Web page design (WP-S13)* depicts a web page design directed to engage peers to discuss the topic of academic stress.

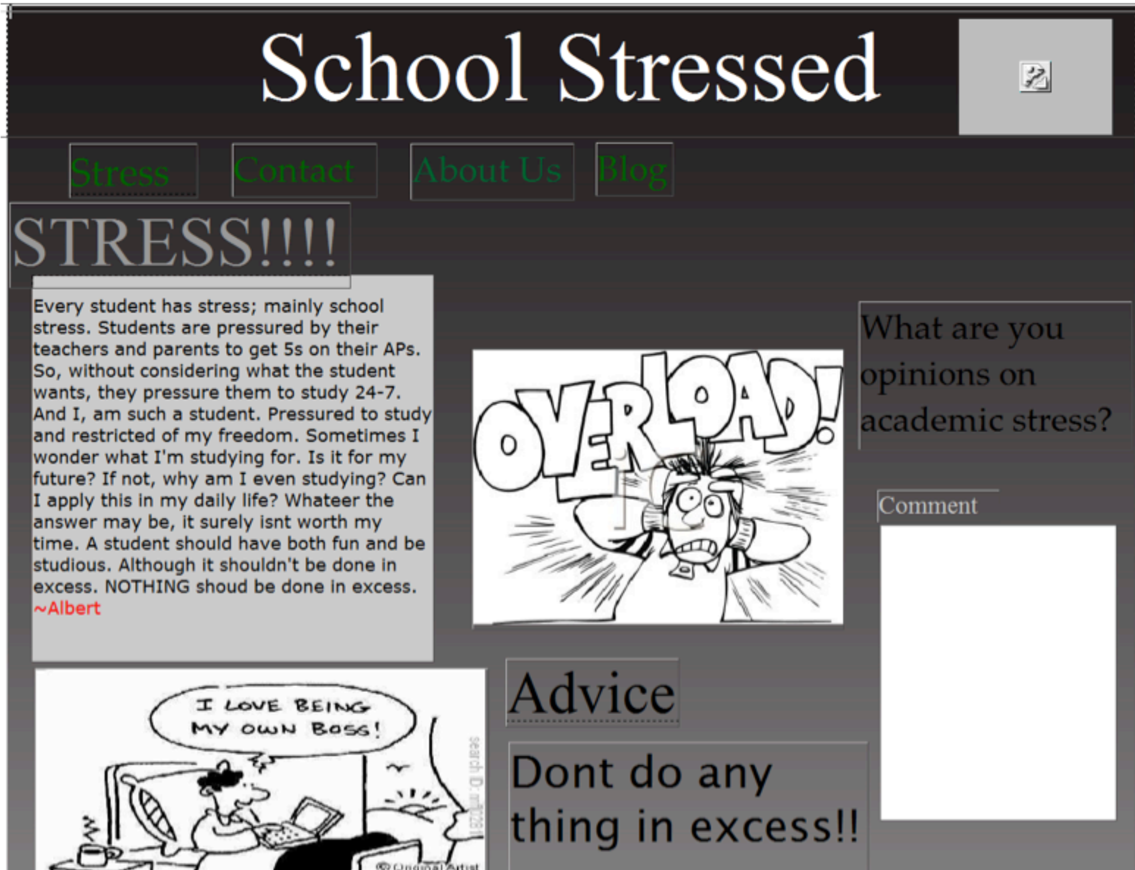

Figure 13. Web page design (WP-S13).

The web page design uses appropriated graphic images and written texts authored by the participant to engage high school students to find humour in their situations, to question the conditions and choices available for dealing with anxiety, and, similar to web designs shown above, to find a sense of autonomy for "being my own boss" (WP-S13). This participant utilizes the curriculum to create prompts, based on his previous experience, for dialogical critique with his peers.

In addition to academic pressure, interactions with social media were discussed as a source of anxiety:

as everyone know Facebook isn't trustworthy webpage…Facebook is like a page where people spread all the rumors, bad things, good things and nearly everything. People share their feeling on their status which causes other people to get attention. And sometimes people may thinks its the truth and might get scared (BD-S14).

Another participant added to the discussion. She commented, "Facebook…affects your mental health both positively and negatively" (BD-S9). However, her neutral stance then turned toward the topic of anxiety. "Facebook users" who "humiliated or made fun of by other people" or have "fake profiles" cause "harm" (BD-S9). The participant infers that Facebook as a technological tool is neutral in contrast to the content created by Facebook users. She deems the created content is the source of her "anxiety" (BD-S9).

The inevitability of spending time online is related to anxiety of adolescents:

Teens nowadays spend most of their leisure time online, reading both true and false posts on facebook. Some people takes the posts seriously and it could definitely affect their mental health. They might start to have depression, guilt, anger, stress, anxiousness and denial. Reading inappropriate posts and conversations could even cause violence. As a result, online reading can negatively affect on readers. (BD-S5)

Patterns of participation and a super peer represented in online social media appear to be influencing the processes of accepting transmitted content or utilizing critical literacy skills for understanding content. Participants describe their attitudes and capacities of critical health literacy and CMHL relative to individual and social conditions of general health and mental health.

4.2.3 Theme 3: Taking Action

Examples of taking action are “control yourself” (BD-S14), “change” (BD-S10), “do what you want” (BD-S16), “try something new” (BD-S13), “tips” for improving health outcomes (WP-S16 and WP-S6), and “fighting for what they believe in” and taking a stand” (BD-S18), and “I think [we] need to work on” (BD-S4). The dialogues generated from the online blog discussion, final web page designs, and second group discussion showed how participants were motivated to take action for themselves and for the benefit of friends and peers based on social relationships and online information and interactions.

In response to a question about how online information and message content is evaluated and assessed for appropriateness and usefulness a participant posted, “To me, if a website is credible or not depends on how the site looks. If a website’s design is appealing and has little extras like slideshows and flash objects then I would use that website to get information” (BD-S15). In addition to animated objects as indicators of usefulness, colour was also described as important in evaluation of information. Participants said they chose to use online media because “the colours make it look like it’s for teenagers” (GD-S2) or “it looks like it is for high school students” (GD2-S4). Several participants said they related to the colours on another participant’s webpage design, which was directed at helping students deal with academic pressure, because the web page design used “gaming colours” (GD2-S19) or “colours for gamers” (GD-S9). Modes such as colour, and multimodal texts such as flash and slide show animations, appear to convey an authority which replaces any critical viewing by these participants.

In addition to visual appeal, participants talked about the need to find online content believable based on information that is presented as facts. In response to a question about how online information is evaluated, a participant explained, “The information should state facts about the topic so that I believe it” (BD-S20). One participant noted that a person might be more or less likely to believe based on the person’s attributes:

> I think it depends on the person's characteristic. For example, if someone posed a story on a website, the reader who read it may take it seriously if they are easy believers. Or some other readers may not believe in the story. (BD-S17)

Participants discussed Facebook content in terms of authenticity. Facebook itself is personified as a character in the conversation: “Facebook works very efficiently in updating us on mental health issues, mainly because all topics and issues can be discussed quite openly. Be it a wall post, link, image, or even a chat between 2 friends” (BD-S4). The statement implies there is a contrast between Facebook and other social contexts: variations in freedom to discuss all topics in which Facebook is seen as a super peer.

Another participant described his thoughts about how content presented on Facebook, in the context of Facebook friends, may be more believable as useful information than if the content were to be presented in another context. “If a person posted on Facebook that someone had mental problems, then people would most likely believe them. A lot of people are influenced by what others believe, whether to fit in with other people, or just because they want to” (BD-S15). Here belief is connected to

transference of beliefs from others, a need to be part of a social group, and a perceived expression of autonomy.

Many of the participants agreed that they could rely on Google for believable information. Most participants agreed that they were confident to use “the links at the top of the Google page” (GD2-S19) which were presented after a search, and then decided what to use based on the “little descriptions” under the links (GD-S5). There was little evidence to show that the participants recognized or found it valuable to distinguish the difference between the sources of the website content behind the links when choosing or evaluating information.

Taking action based on believability also depends on repetition of information and messages:

> I chose to use the information that is realistic and is seen in most of the health website because, if an information appears again again, for me, i believe that the information is true so every website is talking about it. (BD-S17)

The believability of a text due to its repetition of messages or its communication through a particular social media product suggests that the participant is positioning themselves as an object to be acted upon, rather than as a subject of their own experience through which they are in a constant process of learning to perceive socio-political and economic contexts.

One participant asked, “Do you mean that if the website has interesting facts and common information, it is a reliable information?” (BD-S13). None of the other participants responded directly to that question, but a participant commented that she evaluated health information to understand ideas:

> By asking yourself, "Do you understand this idea? Do you think it is reliable?" Sometimes information can be wrong or you might not understand it. Then you shouldn't take that information because you won't know if it is useful or not. (BD-S6)

The relevance of information for taking action appears here as a matter relative to a person's capacities to assess appropriateness and usefulness, or believe, health information. Health information is presented in a direct way as messages described specifically as having health purposes. In addition, health messages are part of social media interactions, interactions in which the health messages are not specifically and overtly described or intended but rather are conveyed as part of underlying messages in the social media interactions which have potential to impact health.

The participants described their online interactions as inevitable. A participant emphasized what he saw as a general teenage condition: "I sometime spend the entire day and night in front of computer designing and editing movies" (BD-S16). Other participants argued, "Some of my friends play [online] games 24 hours" (GD2-S20), and "Almost everybody spend 50% of their days in front of computers and in cyberworld. there's no doubt that stuff on Internet will affect in WHATEVER we think" (BD-S16). This suggests there is an increased likeliness of accessing online content related to health and content from contexts that overlap with the school setting are being read in ways that are described as related to health.

When participants were asked if they had changed health performances based on online information, a participant summarized her process for taking action:

> Yes, I have. i tried to change because I wanted to know if it will work and i thought that it will be better than not doing anything. For example, i saw this website saying people should exercise every day. It was agreeable and reasonable so I tried to spend time every day to exercise. i try because it can help me have less stress and also because i have nothing to lose by exercising, except for fat. It is also because i knew that the activity won't change who i am. (BD-S10)

This participant describes how she evaluated information, made a change, and did not compromise herself as part of her decision to take action for improving her health. This participant's web page, shown in Figure 14 *Web page design (WP-S10)* reflected a critical construction of knowledge about the causes of obesity, how obesity relates to mental health, and advice for fellow research participant about what a person could do to improve their health.

How to avoid obesity?

Here are tips to stop obesity:

1. Consult with a doctor for your nutrition intake so that you won't consume extra calories.'

2. Start exercising daily instead of sitting around and enjoying the luxury.

3. When you are stressed out, share it with a conselor and try to find ways instead of eating more.

Figure 14. Web page design (WP-S10).

Another participant's web page design, Figure 15 *Web page design (WP-S3),* shows an example of a personal story, critical self-reflection, and an offering of advice to teenagers to take action to address depression.

TEENAGERS: DEPRESSIONS

SUICIDAL THOUGHTS DO NOT HELP!!!

I know for a fact that to think about suicide is one of the ways that you would get out of this life, so you would no longer face depression. Depression is caused due to family issues, friendship problems, relationship problems, education problems, and many more. I've gone through these emotions, and I admit that I've thought of suicide, but if I did, I would be missing out on all these new experiences, for example new friends, great events, and a new life. If you keep thinking of suicide, I can tell you that it does not help you, it just gets you even more depressed than you are now. So please don't, love yourself no matter what because in life, somebody's going to love you just because you exist...

Figure 15. Web page design (WP-S3).

The data shows a predominance of prescriptive messages from the participants about how to promote mental health for oneself and one's friends and peers. One participant interviewed her mother and presented the written interview text on her web page design in order to help other students take action in the negotiation of their parental relationships. The interview described the perspective of the mother and the perspective of the participant. The participant discusses "Caring about what I'm feeling" (WP-S4)

from both perspectives. The participant asks about her mother's perspective and presents her mother's view that caring about feelings means that the "talk…requires full attention and time" (WP-S4). This web page design, not shown here due to the use of personal names and photos, was the only example that included personally created photos. The photos depicted the research participant and her mother, and the web page content suggests that the participant views herself as capable of the achievement of positive outcomes through conflict negotiation with parents.

In one instance, a participant asked for help from her classmates in order to address her depression: "I need help: When you are depressed, what do you mostly do, and does it help?" (BD-S3). Two fellow participants reached out to her with responses, expressing a sense of social responsibility and demonstrating a social learning context which is interwoven with various life world and social contexts.

Participants critiqued cultural behaviours related to health and motivation to control health performances. The utilization of online social environments appears as a resource for critically examining their identities and voices in online dialogues.

When turning attention to the in-person interactions at the school, the participants discuss taking action as a process motivated by relationships. One participant makes an argument for evaluating the meaning of 'friend' relationships in order to take action to work on communication and support mental health of fellow students:

> I think students in [this school], as individuals, need to work on how to communicate. One needs to make the decision to work harder on maintaining friendships. I honestly believe that we have come to a point where our day-to-day conversations with school mates are close to being entirely superficial. For those

> we consider "friends" or close to us, we should put in extra effort to being there for him/her and to really find out how the person is doing, be it school related topics, relationships, depression or just anything about LIFE- not everyone's "I'm good." is really what they're feeling. (BD-S4)

As a designer of content for her web page about depression, a participant said she "chose this image for my web page because it is how I felt" and she "thought other teenagers will relate" to it (GD2-S3). Another participant who was concerned about mental health issues that result from academic pressure designed a web page so "teenagers could start talking about the problem" (WP-S15). He responded to a problem he had observed amongst his peers, and he viewed dialogue as a way to take action in addressing the problem. Another participant supported his idea, adding that she often felt "depressed" and "sad" and thought an online place for "the high school students in our school to talk…would be a good idea for us" (GD2-S3). This sparked a brief dialogue amongst the participants and social emotional counselor about how students needed support for taking action. A participant suggested that a teacher or counselor might be helpful facilitating a discussion "online for the students" (GD2-S11). This discussion included several comments about the web page designs produced by the students, and several participants volunteered opinions about the practice of skills for critiquing information and online interactions in order to take action in health performances.

While discussing a fellow participant's web page design, a research participant concluded, "We need more practice" (GD2-S3). Another participant said, "If I had more time I would have made more things on my page that were for [our school's] students" (GD-S8). This attitude suggests that support from teachers and a sense of relatedness

enhances adolescents' motivation to take more control of their own learning. Another participant reflected, "I wish I would have done this in middle school" (GD2-S4). The participants agreed. In an interview, a participant said she had "one 30-minute lesson on health" during middle and high school, and she expressed a concern about the need to talk about and take action to address problematic "drinking…and sexual relationships in the high school" noting, "I don't think it's emphasized enough in our school" (IN5-S4). These comments from participants show a need for curriculum to support them in the development of critical literacies for taking action in their own health outcomes, exploring problem solving approaches and self-awareness of a heightened sensitivity to significant life experiences which appear to be catalysts for taking action to improve health outcomes.

4.3 Chapter Summary and Chapter 5 Preview

This chapter presented the findings as the themes of *optimism, anxiety,* and *taking action*. The findings from this case study were related to previous research studies from chapter 2. In the following and final chapter, chapter 5, the findings will be further discussed in relation to previous research studies and the unit of analysis, CMHL. Chapter 5 will also discuss the significance, limitations and implications of the findings.

Chapter 5: Discussion

"Find the courage to ask questions and to express what you really want.
Communicate with others as clearly as you can
to avoid misunderstandings,
sadness, and drama.
With just this one agreement, you can completely transform your life" (WP-S12)

5.1 Introduction

The purpose of this case study is to contribute to the research literature by exploring how the theoretical concept of CMHL is expressed by Burmese high school students through a curriculum focused on health issues of importance to the students. This exploration was designed to answer the research question:

> How is CMHL expressed by high school students situated in Burma/Myanmar?

This chapter presents a discussion of significance and implications of the findings, the limitations of the study, implications for further research and implications for practice.

5.2 Discussion of the Findings

The study of health literacy capacities of a Burmese adolescent population utilizing a concept of health literacy developed primarily within Western contexts can be a

challenging task with the risk of forming simplified conclusions where none, in fact, exist. Yet this study draws special attention to prominent attributes of a unique population against the background of an existing health literacy concept. Furthermore, my work is based on an exploration of how health literacy capacities are enacted from the perspectives of adolescents with particular interests in the mental health of themselves and their social contexts.

Such an approach affords not only a view of a unique population within an interval of time, but a description of the broader conditions and health literacy needs which shape the unique population. Health literacy has been described as functioning as a social determinant of health related to other social determinants of health (Rootman & Ronson, 2005). Yet this case study leaves unanswered questions about whether improvements to a person's health literacy can overcome powerful determinants such as housing, education, income, or the equity disparities in Burma/Myanmar. Nutbeam's concept of critical health literacy (2000) proposes cognitive skills and expressions of empowerment which can be developed and directed by individuals to take action over their health, but the conceptual framework appears to be structured based on Western assumptions about social determinants, such as political equity for citizens set within a Western ideal of democracy or parliamentary system of government. Such social determinants either do not exist or exist in variable forms and functions both in local contexts of Burma/Myanmar and online.

I have described how CMHL is expressed by high school students situated in Burma/Myanmar, influenced by both Eastern and Western ideas, in an exploratory spirit. The concept of CMHL has relevance for curriculum that engages high school students in

Burma/Myanmar with their social contexts and life worlds in order to critically reflect on the technologically mediated situation of their health concepts and performances, and as an overarching goal, to help high school students to take more control over their own health. These findings answer the central research question of the case study, and questions that followed from that central question, as listed above and as outlined in chapter 3 Table 3 *Alignment of Questions with Constructs of Health Literacy*; however, the questions were not explored in a systematic way that addressed the participants' social determinants of health, systematic relationships amongst social determinants of health, or the apparent relationships that findings indicate are at work amongst participants' health literacy skills, expressions of empowerment and competencies of engaged citizenship. Rather, participants explored their own personal mental health experiences and reflected on their own responses to health issues.

5.2.1 Central Research Question: How is CMHL expressed by high school students situated in Burma/Myanmar?

The presence of CMHL in high school students situated in Burma/Myanmar appears in context of the themes of *optimism, anxiety*, and *taking action*. This discussion will summarize the themes using examples of data from chapter 4, discuss how the themes are explained by the unit of analysis, and present unanswered questions about the presence of CMHL in the participants of this case study.

5.2.1.1 Optimism

The presence of CMHL from the theme of optimism is expressed as confidence and hopefulness about future health conditions and the role of relationships and digital online media in the overall health of the individual, as well as for the mental health of

individuals and social groups. Participants equated health to an optimistic attitude and, further, to the outcomes of emotional and physical health such as a positive sense of autonomy and well-being as a result of physical activity (IN4-S13). Health is described optimistically as "feeling happy" (IN1-S2), and "being, and knowing" (IN5-S4) as a basis for maintaining and improving health.

Online digital media is described as a generally positive tool which is inevitably part of an adolescents' life, offering both pros and cons for health, and a way to express the ideal self. One example from the online blog dialogue demonstrates this point: "Using Facebook and other Internet associated sites are a daily habit for teens these ages…for some people Facebook is their ideal life. For example they pretend to be the person they really want to be" (BD-S11). In addition, content may be more easily accepted by the participant based on the type of media that delivers the content, as described by an evaluation of online gaming activities in which "every second of attention…will result in a happy day" (WP-S1).

Research participants appeared to choose online activities based on a level of hopefulness and confidence that the activities will generate positive mental health outcomes, and it appears that for the research participants digital activities provide a perceived level of control over how to generate optimistic feelings. Similar to findings from previous research with adolescents, the above examples show that meaning is constructed from the perspective of identities which are constructed in overlapping contexts, real and virtual (Gillen et al., 2012; Nahachewsky & Ward, 2007; Wharf Higgins et al., 2009). The participants' contexts are made up of the media used to

represent human beings in the real world, the human beings themselves, and the digital online tools available for thinking, feeling, and doing online activities with others.

Participants' web page designs, for example (WP-S6), demonstrate critical literacy processes. Personal reflections on a stressful situation and ways of dealing with stress are presented by participants as unique to adolescents. The optimistic attitudes conveyed by participants relate to previous research indicating that adolescents' increased motivation in turn enhances autonomy (Haffen et al., 2012) and autonomy is connected to a sense of competence for achieving desired outcomes (Reis et al., 2000; Skinner et al., 2008) and responding to social determinants of health (Woodgate & Leach, 2010). Participants described their beliefs and critical literacy processes from the contexts of their real and digitally-mediated relationships, which were often combined into overlapping contexts. Optimism was claimed as a condition for health and health literacy, especially for dealing with anxiety.

5.2.1.2 Anxiety

Anxiety is shown as a sense of unease and uncertainty about mental health outcomes, such as "depression" (SD-S9), influenced by relationships and the use of digital online media. The anxiety described by the participants relates to studies which show that adolescents' transitional experiences have a significant bearing on their senses of anxiety in social contexts (Paus et al., 2008; Rogoff, 2003; Steinberg et al., 2010).

Similar to findings in previous studies with adolescents, the participants utilized the curriculum to create prompts, based on previous experiences, for dialogue with peers (Larson, 2009). This dialogue was intended by them to critique the cultural influences on health (Woodgate & Leach, 2010). Prompts included, "Do you mean that if the website

has interesting facts and common information, it is a reliable information?" (BD-S13), "Do you understand this idea?" (BD-SD6), and "When you are depressed, what do you mostly do, and does it help?" (BD-S3).

In addition to "academic pressure" (WP-S13) from educationally-oriented contexts, interactions with social media were discussed as a source of anxiety. For example, taking "posts seriously" (BD-S5) on social media, or believing "fake profiles" (BD-S5) on social media or "updates from Facebook" (BD-S4), were identified as negatively affecting mental health. Similar to findings in previous research with adolescents, the processes of accepting transmitted content or utilizing critical literacy skills for understanding content is influenced by the overlapping social contexts of content (Begoray et al., 2010; Gillen et al., 2012; Li-Chun, 2010; Steinberg et al., 2011; Wharf Higgins et al., 2009), by a media super peer (Brown et al., 2005), and patterns of participation in relationships through which adolescents develop critical literacy skills (McBride, 2012; Nahachewsky & Ward, 2007; Serek et al., 2012: Simovska, 2012).

Examples of dialogue show participants engaging their peers to examine their mental health situations, considering online information and interactions "both positively and negatively" (BD-S9), and to question the conditions and choices available for dealing with "overload" (WP-S13). Participants described their attitudes, capacities of critical health literacy (Nutbeam, 2000) and critical media literacies (Hobbs, 2011; Levin-Zamir et al., 2011; Wharf Higgins & Begoray, 2012) relative to individual and social conditions of general health and mental health.

Participants were motivated by experiences of anxiety to change or control general health or mental health for themselves and for the benefit of friends and peers based

social relationships and online information and interactions. Participants evaluated online information and social media interactions based on visual appeal, believability of online content, believability of content based on its presentation in a social media product, but there was little evidence to show that critical engagement, for example, was recognized or considered as valuable by participants to distinguish the difference between the sources of the website content behind the links when choosing or evaluating information. The transmission of health information and health messages was accepted by participants from particular sources. “Google” (GD2-S19) and “Facebook” “BD-S5) were described by participants to be reliable sources of information on which to base actions for improved health performance. Repetition of online information (BD-S15) was also noted as an indication of reliability of health information.

5.2.1.3 Taking Action

The relevance of information for taking action appears in this case study as a matter relative to a person’s capacities to assess appropriateness and usefulness, or believe health information that is presented as such and health messages that are a part of social media interactions. Yet the participants described their online interactions as inevitably affecting their mental health, based in their views as an outcome of time spent online. For example, participants discussed their online activities would sometimes take up “24 hours” a day (GD2-S20), and almost “everybody spend 50% of their days in front of computers and in cyberworld. there’s no doubt that stuff on Internet will affect in WHATEVER we think” (BD-S16). The increased likeliness of accessing online content related to health (Alpay et al., 2009; Larson, 2009; Li-Chun, 2010) is apparent for these participants and, similar to findings in previous research with high school students,

content from contexts that overlap with the school setting is being read in ways that are described as related to health (Begoray et al., 2010; Levin-Zamir et al., 2011)

Kress (2011) argues that representational modes and existing multimodal texts are unique to a "social group and its cultures at a particular moment" and constitute "distinct resources for making meaning" (p. 242). Although resources utilized by the research participants may have first been formed based on beliefs and motivations from a different unique social situation and purpose, the Internet and open access to channels of communication and content make the online resources available for new interpretations and uses in texts for social situations and purposes without perception or intentional critique of the meanings in appropriated resources. Critique appears to be bypassed by participants due to the power of a mode or multimodal text to which the viewer feels a strong need for identification or due to the lack of a learned behaviour for critiquing online textual communications and content.

Particular modes or multimodal texts hold authority in particular situations. Texts, such as web pages and instances of video game play, are made of unique combinations of directly applied modes, such as colour, and multimodal texts, such as gestures visible in photographic images, which are appropriated, remade, or created as a personal expression of meaning or knowledge. Colours which are identified with online gaming appear to hold an authority for those who wish to be identified as 'gamers' in the social groups and cultures of online gaming. The content of the webpage appears to be taken uncritically when a characteristic, such as colour on a webpage, is seen as authoritative because of its identification with 'gaming' and the viewer's strong identification as a 'gamer'. Multimodal features, such as animated objects, appear to convey critique-blocking

authority in a similar way. The critical view of a text's content, effects, socio-political motivations, and values appears to be seen as unnecessary by the viewer when a mode or multimodal textual component presents an instantaneous and personally desirable identification for the viewer.

Taking action was shown by personal stories showing critical self-reflection and offering advice to teenagers to take action to address mental health issues, as shown in web page designs (WP-S1, S10). The data shows a predominance of prescriptive messages from the participants about how to promote mental health for oneself and one's friends and peers. Previous research shows that adolescents who perceive themselves as being able to achieve positive outcomes through conflict negotiation with parents tend to perceive themselves as having more influence in their communities (Serek et al., 2012).

Participants presented "tips" for improving health outcomes (WP-S16 and WP-S6) to the group for discussion, expressing a sense of social responsibility and demonstrating a social learning context interwoven with various life world and social contexts. Similar to previous studies with adolescents, the participants demonstrate critique of cultural behaviours related to health (Woodgate & Leach, 2010), motivation to control health performances (Haffen et al., 2012; Skinner et al., 2008), and the utilization of online social environments for critically examining their identities and voices in online conversations (Nahachewsky & Ward, 2007).

When turning attention to the in-person interactions at the school, the participants discuss taking action as a process motivated by relationships. The participants reflected on what they would do if they were to have more time for their mental health inquiry and web page design (GD-S17) and discussed the possibility of taking action on a mental

health project for their high school community (GD-S3, S4, S15). Comments from participants show a need for curriculum to support them in the development of critical literacies for taking action in their own health outcomes (Ryan & Deci, 2000; Skinner et al., 2008; Wharf Higgins et al., 2009; Haffen et al., 2012; Marks & Wharf Higgins, 2012). There is also a problem solving approach evident as a motivation to take control of health (Paus et al., 2008) and heightened sensitivity to significant life experiences (Blakemore, 2012; Blakemore & Choudhury, 2006) which appear to be catalysts for taking action to improve health outcomes.

The adolescent participants in this case study have characteristics and needs in common with adolescents around the world. They construct meaning in overlapping real and virtual contexts and appear to be affected by motivation, autonomy, and competence for achieving desired health outcomes and responding to social determinants of health. Furthermore, the findings of this case study show that adolescents in Burma, like their peers around the world, develop processes of accepting content or utilizing critical literacy skills for understanding content, but those processes are influenced by the media which acts as a super peer, patterns of participation in relationships, and heightened sensitivity to significant life experiences. Finally, the importance of digital life for the adolescent participants in this case study is similar to that of adolescents around the world.

Yet the unique needs of the population represented in this study require further exploration. This case study did not uncover knowledge about the participants' attitudes, skills, and strategies for critiquing how the contexts of their socio-economic and physical environments influence their health or for taking action that engages with those

influential environments. The findings nevertheless suggest the need for curriculum which facilitates an exploration of how the conditions of dialectical contradictions of opposing social authorities, or power, in social contexts (Foucault, 1979) relates to the changing roles and potential roles of the participants as adolescents become adults. In particular, there is a lack of data from this case study to explain how technology, whether as a political system of government or an online game, objectifies the participants or affords individuals as citizens to objectify reality (Freire, 2000) and act to transform social contexts which are subtly, indirectly, or overtly oppressive (Giroux, 2005.)

5.2.1.4 Critical Media Health Literacy and Gaps

When setting the themes within the unit of analysis, CMHL, more questions come to light that have been left unanswered by this case study. The themes show that the participants need to develop more skilled capacities for accessing information based on digital media designed for ease of access to online information and social media. Search engines such as Google are designed to work in certain ways to privilege some sources over others (Hargittai, 2007), and adolescents need skills for understanding and evaluating the power and capacities of the tools utilized for accessing information. Critically interacting with media based on personally-held or socially-held beliefs and motivations requires a critique of the structures of power in the systems in which participants are participating, and the roles available for that participation. Such a specific critique was not evident from this case study. This would require participants, educators, and researchers to examine the conditions of digitally mediated experiences through a social learning curriculum.

Skills for understanding, interpreting, and reflecting on information were shown in this case study to be based on personal reflection and motivation for helping peers. Participants of this study, like adolescents in other settings discussed in chapter 2, are enacting roles as ‘teenager’ and ‘first-person shooter’ among others. But there are other related questions that are left unanswered: What roles do the participants enact through online media? How are roles conceptualized by participants in relation to the non-digital self? Why are online media influences taken as inevitable?

The themes of this case study uncovered some expressions of empowerment in which participants made informed decisions for themselves and as part of a classroom community. There is also evidence of participants advocating for themselves to enhance their own health. Yet there is a lack of evidence to show how participants learn to interact through media to advocate for structural changes to enhance personal health or the health of a social group. Questions remain: What possibilities for empowerment do social, and social media, roles provide for the participants to critically interact with socio-economic and physical environments? How do the roles empower participants to engage their own personal characteristics, for example gender, to take health-promoting action in their social environments? How are roles structured, limited, and expandable?

The gaps in CMHL of participants, represented by the above questions, are related to participants’ gaps in competencies of engaged citizenship. The themes of this case study describe participants describing health experiences, such as anxiety, making productively healthy decisions in a public space, expressing personal health beliefs and motivations in a public space, expressing socially inclusive health beliefs, expressing a sense of social responsibility, and acting on a belief of social responsibility. Yet the

participants' expressions and actions are limited to the social contexts of the classroom community and the participants' life worlds which were engaged by the research design and curriculum. CMHL skills and capacities for empowerment need to be conceptualized relative to the public spaces in which adolescents in Burma/Myanmar engage as they develop into and mature throughout adulthood.

These outcomes of an examination of *How CMHL is expressed by high school students situated in Burma/Myanmar* are reflective not only of the research participants' capacities, but also of my own capacities as their teacher to facilitate the curriculum in a way that supports the enactment of critical discussions about systematized power which is embedded in social attitudes, language, digital social media, or other attributes of the health determinants. My operationalization of the theoretical concept for curriculum, on reflection, might have emphasized more intensive and longer-term inquiries into the influences on students' literacy capacities.

5.3 Limitations of the Study

A limitation of this study's findings arose from the way in which I implemented CMHL theory in the data collection process and interdisciplinary curriculum. If I were to initiate more research with the same unit of analysis and for the same purposes of helping participants to develop critical literacies, I would explicate the constructs of the theoretical framework more rigorously in the data collection tools and curriculum and facilitate more practice activities for students to interrogate health information from a variety of sources, both explicit health messages in decontextualized sources and inexplicit messages in contextualized sources (Gee, 2000). This would have provided more balance between the various disciplines represented in the media health literacy

course which served as the basis for the exploring the research problem and for facilitating the interdisciplinary aspects of the curriculum.

5.4 Implications

Several implications are an outcome of the findings presented in this case study. The findings that coincide with previous research indicate that the health, media and literacy contexts of the research participants have consequences for further research and for pedagogy with this population and in this setting.

5.4.1 Implications for Research

Theoretical developments which explain how literacies function may form a bridge to designing high school curriculum for adolescents in Burma/Myanmar and for engaging with the media and health literacy research discourse internationally. Yet, the findings from this case study indicate gaps in knowledge about why and how health literacies in general, and CMHL in particular, are relevant to the social and political situations of adolescents in Burma/Myanmar.

Researchers are therefore challenged to understand how CMHL is developed and practiced by adolescents, practices that are developing and changing as the conditions of media and health change. The facilitation of more varied interviews and focus group dialogues in further research might generate a more explanatory description of the research problem and context. For example, multiple online and face-to-face dialogues which explore different lines of inquiry into skilled capacities, expressions of empowerment, competencies of engaged citizenship, and perceptions of inevitable and unrecognized technological structures might generate a richer data set for analysis of how theory design relates to implementation of health promotion interventions. These

objectives would require a synthesis of student-chosen topics and population-appropriate topics from health literacy research literature for an interdisciplinary curriculum, as well as a better match of digital technologies and skills for the population and more time for practice in evaluating media content and mechanisms in relation to the topics of the curriculum intervention.

Future research designs would require more in-depth and longitudinal interview and observation processes to collect both quantitative and qualitative data. Quantitative data is needed to describe in detail the social determinants of health present in Burma/Myanmar, and qualitative data is required to understand the conceptual variations of health literacy which form a basis of health literacy for the participants of research in order to propose conceptual models for health literacy curriculum interventions and measurement instruments (McCormack, Rush, Kandula, & Passche-Orlow, 2011) as an outcome of future basic research studies. Both quantitative and qualitative data is required to describe if and potentially how existing theories of self-determination, described by autonomy, competence, and relatedness (Ryan & Deci, 2007), are present in the contexts and enactments of adolescents who are situated in Burma/Myanmar and online. Pre and post structured interviews based on existing concepts of critical health literacy and CMHL would provide benchmarks for reporting on applicability of existing concepts, the variations present in Burma/Myanmar and in online contexts, and changes to health literacy competencies for participants over a multi-year study.

The findings of this case study show that students responded to the online social media blog as a productive dialogical tool, but the web design technology used by the school presented a barrier to expression. Moreover, the tool is not as prominent for the

web design industry as other tools that would have likely provided students with a more productive vehicle for expression and development of technical skills and literacies capacities. That alternative approach would have potentially produced a richer data set for the research and analysis, ultimately providing more information about what considerations should be taken when operationalizing a theory for education curriculum.

Theory implemented for data collection and analysis requires a way to explain how literacy skills are relevant to literacy performances and critiques of overlapping social contexts involving digital media and health. Literacy skills in digitally involved life worlds and contexts require the capacity to develop abstract views of online activities and information because, as shown in this study, the research participants did not indicate an awareness of, or significant interest in, how the digital structures they were involved in were framing their literacy practices. Theory is needed to explain the constructs and functioning of these social contexts and if and how the contexts relate to specific health issues and the health literacy needs of a population. Based on the data generated by this study with adolescents in Burma/Myanmar, further exploration is needed to understand why social structures are perceived as inevitable, how unperceived digital structures influence the criticality of literacies, and how social pressures are negotiated.

Research into educational policy is needed to guide choices of health literacy theories around which to orient policy and to guide the design, facilitation, and data collection of high school curriculum directed at improving adolescents' literacies skills for media interactions and health performances, and civic engagement, in Burma/Myanmar. Figure 16 *CMHL and questions for exploration* relates the themes to their relevant attributes in the unit of analysis and describes the gaps between the

empirical data generated by this case study and the unit of analysis, CMHL. The gaps are introduced as questions for further inquiry.

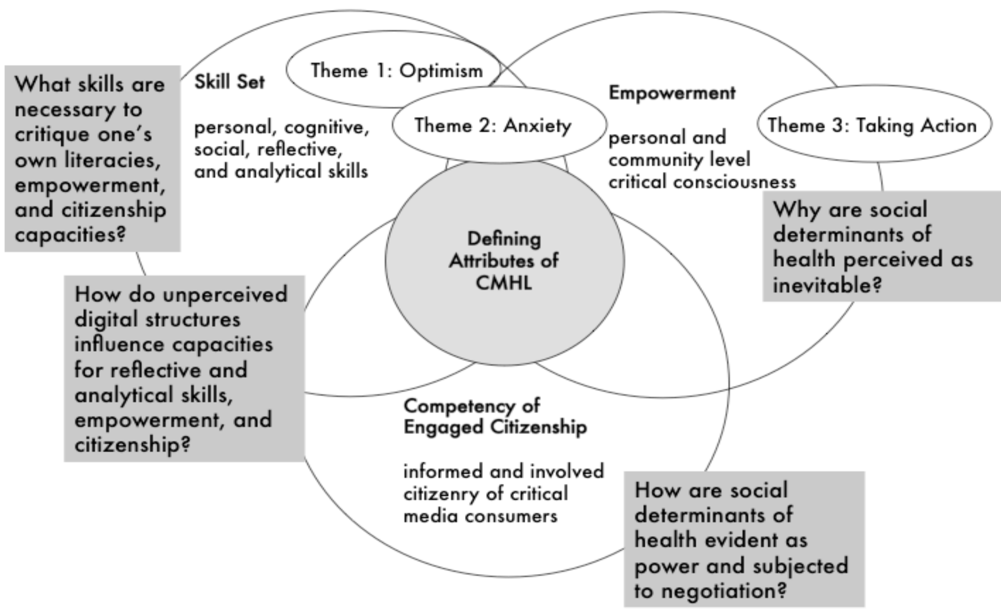

Figure 16. CMHL and questions for exploration.

The findings of this case study show that adolescents in Burma/Myanmar use online media resources to access, acquire, critique, and promote health information and personal stories about health, but new questions have emerged in relation to those findings. The online resources utilized by the participants of this study were infrequently web pages or social media channels designed specifically for health promotion or healthcare, or for adolescents as a target group, and were more frequently dialogical resources that convey health-related messages through informal channels constructed by an individual's own experience. While the findings do not show direct connections of participants' knowledge construction to the intentions, services, or costs of healthcare, these student participants are in a position as citizens to utilize knowledge developed as a

result of their health experiences to influence and be influenced by the health promotion and healthcare services available to them.

Concepts of health literacy which integrate skills for critique of online media as a dimension, such CMHL, need to be extended to address questions for future research. Skills for accessing and assessing online information need to include a self-awareness about how skills might be used differently in different social contexts, for different online modes and with the multimodal texts of social media. The dimension of citizenship needs to be specified into roles that suit unique research contexts. For example, the findings of this case study indicate that the role of citizen varies with political context; for example, it is unique to the political system of Burma/Myanmar, yet there is opportunity for research participants in Burma/Myanmar to define roles of citizenship that are appropriate to their changing social status as adolescents in their social contexts and to achieve their desired health outcomes. The findings of this case study suggest that critique is a process that originates in a person's concept of the self in a role and context, where both the role and context hold affordances for power and taking action for the self or a community.

The participants in this case study demonstrate that they are capable of accessing and understanding a significant amount of online health-related content. But their understanding of content appears to be primarily driven by their belief that they should understand the content in a certain way as a member of an identifiable social group. Identity in a social group is conveyed through modes and multimodal texts of social online media. Concepts of health literacy need to support dimensions of critique that can be the basis of questions about identity and social role as it relates to the development of

health literacy capacities: How are particular online social media texts designed to be understood, and how does that designed intent potentially impact health concepts and outcomes of adolescents? What online resources do adolescents utilize to make meaning for taking action in their health performances? What online media resources hold authority in motivating adolescents' enactment of health performances? How do the modes and multimodal components of online textual resources influence the skills that participants actively use to develop health literacy? How does health knowledge appear differently in different online media modes?

In order to take up future research, a theoretical model is needed which defines conceptual relationships of unique political, economic and cultural settings because politics, economies, and cultures are mediating health literacy practices. One alternative is to consider dimensions such as the system of relations between skills, empowerment, and citizenship. It may be through an understanding of the system of relations between politics, economies and cultures, or between skills, empowerment and citizenship, that research could uncover how health performances of adolescents in a particular context are contingent to the system of relations. If contingencies in taking action in health performances are discovered by adolescents to be mutable or ahistorical, then the adolescents may be empowered to take action for themselves and others in their social contexts. Figure 17 *A conceptual framework for future research based on CMHL* depicts suggested dimensions for the unit of analysis of future research designs. A research design which constructs empowerment and citizenship as skills, and includes an exploration of the systems of relations which exist between skills, empowerment,

competencies of citizenship, and social determinants of health would potentially uncover barriers and enablers of health literacy development in a particular context.

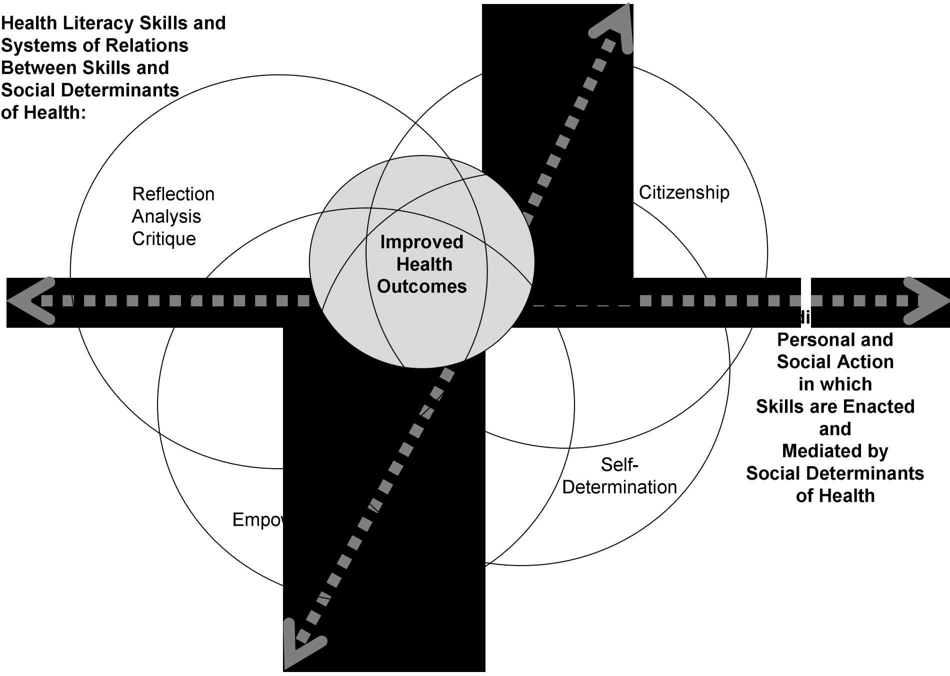

Figure 17. A conceptual framework for future research based on CMHL.

5.4.2 Implications for Pedagogy

The themes of this study indicate that CMHL helps to explain how literacy capacities can affect adolescents' understandings of health and performances in addressing their mental health needs. In addition, the findings indicate that the theoretical concept of CMHL, when operationalized in curriculum, is supportive of literacy development of this study's research participants and their capacities to address their health concerns. Yet further research through teaching is needed to understand the

significance of these literacy capacities for the particular health and social needs of the various communities of young people in the context of Burma/Myanmar.

In this case study, the technology learning components were not well integrated to match the needs of a critical inquiry into the relationships between media and health. I should have challenged the systematic power of the school administration, which specified the web design tools and facilities I used for the web page segment of data collection and curriculum, by integrating digital tools that were more relevant and accessible to the students and the trends of the social media industry in which the students participate.

The findings to some degree show that the students helped themselves in the course of facilitated curriculum to develop literacies that in turn helped them to begin to address improvements to their health outcomes and develop roles as active participants in society. Variations between the findings of this case study and the research literature were discussed in chapter 4. The extent to which the findings here vary from the literature presented in chapter 2 show there is an opportunity for further study in school settings with this population and setting. In addition to the need for further research about the health status, problems, and goals of young people in Burma/Myanmar, the findings relative to the operational functioning of theory as a unit of analysis and curriculum framework show that further study has the potential to advance theoretical development in ways that keep the theory relevant to social needs, and are possibly customizable to the unique demands of particular classrooms.

5.5 Summary

The findings from this case study bring attention to the media and health related literacy capacities and needs of a group of high school students situated in Burma/Myanmar, an important window into an understudied population and their socio-political needs. As discussed in chapter 2, health literacy has been shown to be influenced by media and to have an influence on health outcomes. This study underlines those general trends and provides a contextualized view of a particular population that is actively engaged with media, faces a range of health needs, and expresses their desire to affect their health, allowing them to make meaning in their interwoven physical and online personal and social lives. For the research participants of this case study, their adolescent development occurs in stark, complex, and changing political and economic social contexts. These contexts would benefit from citizens who could engage critically with power constructs in order to improve their health outcomes and attain personal and social wellbeing. Personal and social well-being is influenced by the development of government structures and processes that demonstrate the democratic values and representation expounded by democratic leaders in Burma/Myanmar. Democracy, as described by the Burmese democratic leader Aung San Suu Kyi, requires citizens to participate in the critique and enactment of “a representative government appointed for a constitutionally limited term through free and fair elections” (1995, p. 169).

It is significant that the data from this case study showed few examples of critical engagement with power in social contexts. Yet, as exemplified in the opening quotation to this chapter, the findings illustrate that the research participants’ motivation to take control of their health and health contexts by finding the courage to ask questions and to

express their needs and desires. Clearly there is an opportunity to continue to engage with Burmese adolescents to bring their aspirations for improved personal and social health outcomes together with CMHL research in a way that helps to develop the democratic citizenship of Burma/Myanmar.

References

Alpay, L., Verhoef, J., Xie, B., Te'eni, D., & Zwetsloot-Schonk, J. H. M. (2009). Current challenges in consumer health informatics: Bridging the gap between access to information and information understanding. *Biomedical Informatics Insights, 2*, 1-10. Retrieved from http://la-press.com/article.php?article_id=1390

Altheide, D. L., & Johnson, J. M. (1998). Criteria for assessing interpretive validity in qualitative research. In N.K. Denzin, & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed.) (pp. 443–466). Thousand Oakes, CA: Sage.

Alvermann, D.E. (2008). Why bother theorizing adolescents' online literacies for classroom practice and research? *Journal of Adolescent & Adult Literacy, 52*(1), 8-19. Retrieved from http://www.jstor.org/stable/30139646

Asia Society. (2010). *Current Realities and Future Possibilities in Burma/Myanmar: Options For U.S. Policy.* Retrieved from http://asiasociety.org/files/pdf/ASBurmaMyanmar_TaskForceReport.pdf.

Aung San Suu Kyi. (1995). *Letters from Burma.* London: Penguin.

Bernard, H. R. (2006). *Research methods in anthropology: Qualitative and quantitative approaches* (4th ed.). Lanham, MD: AltaMira Press.

Begoray, D., Cimon, M., &, Wharf Higgins, J. (2010). *Mediating health: The power and role of the media.* New York, NY: Nova Science Publishers, Inc.

Begoray, D., Wharf Higgins, J., & MacDonald, M. (2010). High school health curriculum

and health literacy: Canadian student voices. *Global Health Promotion, 16*(4), 35-42. doi: 10.1177/1757975909348101

Bergsma, L. J. (2004). Empowerment education: The link between media literacy and health promotion. *American Behavioural Scientist 48*, 152-164. doi: 10.1177/0002764204267259

Bergsma, L. J., & Carney, M. E. (2008). Effectiveness of health-promoting media literacy education: A systematic review. *Health Education Research, 23*(3), 522-542. doi: 10.1093/her/cym084

Blakemore, S-J. (2012). Development of the social brain in adolescence. *Journal of the Royal Society of Medicine 105*, 111-116. doi: 10.1258/jrsm.2011.110221

Blakemore, S-J., & Choudhury, S. (2006). Development of the adolescent brain: Implications for executive function and social cognition. *Journal of Child Psychology and Psychiatry, 47*(3-4), 296-312. doi: 10.1111/j.1469-7610.2006.01611.x

Boucaud, A., & Boucaud, L. (1992). *Burma's golden triangle: On the trail of the opium warlords.* Bangkok: Asia Books.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. Retrieved from http://dx.doi.org/10.1191/1478088706qp063oa

British Broadcasting Company (BBC). (2012). *Burma Profile*. Retrieved from http://www.bbc.co.uk/news/world-asia-pacific-12990563.

Bronfenbrenner, U. (1979). *The ecology of human development.* Cambridge, MA: Harvard University Press.

Brown, J., & Adler, Richard P. (2008). Minds on fire: Open education, the long tail, and learning 2.0. *Educause review 43*(1), 16-32. Retrieved from https://net.educause.edu/ir/library/pdf/ERM0811.pdf

Brown, J. D., Halpern, C. T., & L'Engle, K. L. (2005). Mass media as a sexual super peer for early maturing girls. *Journal of Adolescent Health, 36*(5), 420-427. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/15837346

Budde Comm. (2013). *Myanmar (Burma) - Telecoms, Mobile and Internet.* Retrieved from http://www.budde.com.au/Research/Myanmar-Burma-Telecoms-Mobile-and-Internet.html.

Burmese hungry for justice: Aung San Suu Kyi. (2011, June 13). *The Hindu*. Retrieved from http://www.thehindu.com/nes/international/article2101578.ece

Canadian Alliance on Mental Illness and Mental Health (CAMIMH). (2007). *Mental Health Literacy* Retrieved from http://camimh.ca/key-reports/mental-health-literacy/

Canadian Alliance on Mental Illness and Mental Health (CAMIMH). (2012). *What is mental health?* Retrieved from http://camimh.ca/mental-illness-awareness-week-english/about-mental-illness/what-is-mental-health/

The Canadian Council on Learning. (2008). *Health literacy in Canada: A healthy understanding.* Retrieved from http://www.ccl-cca.ca/ccl/Reports/HealthLiteracy.html

Colman, I., & Ataullahjan, A. (2010). Life course perspectives on the epidemiology of depression. *Canadian Journal of Psychiatry 55*(10), 622-32. Retrieved from http://search.proquest.com.ezproxy.library.uvic.ca/docview/760990954?accounti

d=14846

Cope, B., & Kalantzis, M. (2000). *Multiliteracies: Literacy learning and the design of social futures*. New York, NY: Routledge.

de Beauvoir, S. (1989). *The second sex*. (H. M. Parshley, Trans.). New York, NY: Vintage Books. (Original work published 1952)

Deci, E. L. (2009). Large-scale school reform as viewed from the self-determination theory perspective. *Theory and Research in Education, 7*(2), 244–252. doi: 10.1177/1477878509104329

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005) *Handbook of qualitative research* (3rd ed.). Thousand Oakes, CA: Sage.

Facebook. (2012). *Key facts*. Retrieved from http://newsroom.fb.com/Key-Facts.

Foucault, M. (1979). *Discipline and punish: The birth of the prison*. Translated by A. Sheridan. New York, NY: Vintage Books.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*, 59-109. doi: 10.3102/00346543074001059

Freire, P. (2000). *Pedagogy of the oppressed* (30th anniversary ed.). Translated by M. B. Ramos. New York, NY: Continuum.

Gee, J. P. (2000). New people in new worlds: Networks, the new capitalism and schools. In B. Cope, & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 43-68). New York, NY: Routledge.

Geertz, C. (1973). *The interpretation of cultures: Selected essays.* New York, NY: Basic Books.

Gillen J., Ferguson, R., Peachey, A., & Twining, P. (2012). Distributed cognition in a virtual world. *Language and Education, 26*(2), 151-167. Retrieved from http://dx.doi.org/10.1080/09500782.2011.642881

Giroux, H. A. (2005). *Schooling and the struggle for public life: Democracy's promise and education's challenge.* Herndon, VA: Paradigm Publishers.

Giroux, H. (2009). Democracy's nemesis: The rise of the corporate university. *Cultural Studies ↔ Critical Methodologies, 2009*(9) 670-696. doi: 10.1177/1532708609341169

Guba, G.G., & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N.K. Denzin, & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105- 117). Thousand Oaks, CA: Sage.

Guest, G., Namey, E., & Mitchell, M. (2013). *Collecting qualitative data: A field manual for applied research.* Thousand Oakes, CA: Sage.

Habermas, J. (1987). *The theory of communicative action. Vol 2: Lifeworld and system: A critique of functionalist reason.* (T. McCarthy, Trans.). Boston, MA: Beacon Press. (Original work published 1981)

Haffen, C., Allen J. P., Mikami, A. Y., Gregory, A., Hamre, B., & Pianta, R. C. (2012). The pivotal role of adolescent autonomy in secondary school classrooms. *Journal of Youth and Adolescence, 41*, 245-255. doi 10.1007/s10964-011-9739-2

Hargittai, E. (2007). The social, political, economic, and cultural dimensions of search engines: An introduction. *Journal of Computer-Mediated Communication, 12*(3), 769-777. doi 10.1111/j.1083-6101.2007.00349.x

Hess-Biber, S. N., & Leavy P. (2011). *The practice of qualitative research* (2nd ed.).

Thousand Oakes, CA: Sage.

Hobbs, R., & Frost, R. (2003). Measuring the acquisition of media literacy skills. *Reading Research Quarterly, 38*(3), 330-355. doi: 10.1598/RRQ.38.3.2

Hobbs, R. (2004). A review of school-based initiatives in media literacy education. *American Behavioural Scientist, 48*(1), 42-59. doi: 10.1177/0002764204267250

Hobbs, R. (2011). *Digital media literacy: Connecting culture and classroom*. Thousand Oakes, CA: Sage.

Husserl, E. (1970). *The crisis of European sciences and transcendental phenomenology.* Trans. D. Carr. Northwestern University Press: Evanston, IL.

Ipri, T. (2010). Introducing transliteracy: What does it mean to academic libraries? *College & Research Libraries News, (71)*10, 532-567. Retrieved from http://crln.acrl.org/content/71/10/532.full.

James, H. (2005) *Governance and civil society: Education, health and environment in Myanmar.* London: RoutledgeCurzon.

Johnson, S., Baur, C., & Meissner, H. (2011). Back to basics: Why basic research is needed to create effective health literacy interventions. *Journal of Health Communication, 16*(Suppl. 3). 22-29. doi: 10.1080/10810730.2011.604707

Keselman, A., Logan, R., Arnott Smith, C., Leroy, G., & Zeng-Treitlefr, Q. (2008). Developing informatics tools and strategies for consumer-centered health communication. *Journal of American Medical Informatics, 15*(4), 473-483. doi:10.1197/jamia.M2744

Kickbusch, I. (2001). Health literacy: Addressing the health and education divide. *Health Promotion International, 16*(3), 289-297. doi:10.1093/heapro/16.3.289

Kickbusch, I. (2007). Innovation in health policy: Responding to the health society. *Gaceta Sanitaria, 21*(4): 338-42. Retrieved from http://www.doyma.es.

King, J. (2007). Environmental Scan of Interventions to Improve Health Literacy: Final report. Antigonish, NS: National Collaborating Centre for Determinants of Health. Retrieved from http://www.douglascollegeroyals.ca/__shared/assets/Environmental_Scan_of_Interventions_to_Improve_Health_Literacy62607.pdf

Kress, G. (2000). Design and transformation: New theories of meaning. In B. Cope, & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* (pp. 153-161). New York, NY: Routledge.

Kress, G. (2011). Partnerships in research: Multimodality and ethnography. *Qualitative Research 11*(3), 239-260. doi: 10.1177/1468794111399836

Lankshear, C., & Knobel, M. (2011). *New literacies: Everyday practices and classroom learning*. Berkshire, England: Open University Press.

Lankshear, C., & MacLaren, P. (Eds.). (1993). *Critical literacy: Politics, praxis, and the postmodern.* New York, NY: SUNY Press.

Larson, L. (2009). Reader response meets new literacies: Empowering readers in online learning communities. *The Reading Teacher, 62*(8), 638-648. Retrieved from http://www.jstor.org/stable/20486619

Levin-Zamir, D., Lemish, D., & Gofin, R. (2011). Media health literacy (MHL): Development and measurement of the concept among adolescents. *Health Education Research, 26*(2), 323-335. doi: 10.1093/her/cyr007

Li-Chun, C. (2010). Health literacy, self-reported status and health promoting behaviours

for adolescents in Taiwan. *Journal of Clinical Nursing, 20*, 190–196. doi: 10.1111/j.1365-2702.2009.03181.x

Lupiáñez-Villanueva, F., Mayer, M.A., & Torrent, J. (2009). Opportunities and challenges of Web 2.0 within the health care systems: an empirical exploration. *Informatics for Health and Social Care 34*(3), 117-26. doi:10.1080/17538150903102265

Madison, D. S. (2011). The labor of reflexivity. *Cultural Studies <=> Critical Methodologies 11*(2), 129-138. doi: 10.1177/1532708611401331

Marks, R. (Ed.). (2012). *Health literacy and school-based health education*. Bingley, UK: Emerald Group.

Marks, R., & Wharf Higgins, J. (2012). Health literacy skills needed by children, teachers, and parents. In R. Marks (Ed.), *Health literacy and school-based health education* (pp. 63–77). Bingley, UK: Emerald Group.

Marschollek, M. (2007). Advances in education and consumer health informatics. Findings from the Section on Education and Consumer Informatics. *Yearbook of Medical Informatics, 2007*, 95-97. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/17700911

Maung Thein Zaw. (2013). The heat bearer. In ko ko thet, & J. Burne, (Eds.), *Bones will crow: An anthology of fifteen contemporary Burmese poets* (p. 167). DeKalb, IL: Northern Illinois University Press.

McBride, M. F. (2012). Reconsidering information literacy in the 21st century: The redesign of an information literacy class. *Journal of Educational Technology Systems, 40*(3), 287-300. doi: http://dx.doi.org/10.2190/ET.40.3.e

McCormack, L., Rush, S., Kandula, N., & Paasche-Orlow, M. (2011). Health literacy research: Looking forward. *Journal of Health Communication, 16*(Suppl. 3), 5-8. doi: 10.1080/10810730.2011.605823

Miles, M., & Huberman, M. (1994). *Qualitative data analysis: An expanded sourcebook.* Thousand Oakes, CA: Sage.

Nahachewsky J., & Ward, A. (2007). Contrapuntal writing: Student discourse in an online literature class. *English Teaching: Practice and Critique, 6*(1), 50-68. Retrieved from http://education.waikato.ac.nz/research/files/etpc/2007v6n1art3.pdf

National Association for Media Literacy Education (NAMLE). (2012). *Media literacy defined*. Retrieved from http://namle.net/publications/media-literacy-definitions/.

The National Council of Teachers of English (NCTE). (2007). *Adolescent literacy: A policy research brief produced by The National Council of Teachers of English.* Retrieved from http://www.ncte.org/library/NCTEFiles/Resources/PolicyResearch/AdolLitResearchBrief.pdf

Nutbeam, D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International, 15*(3), 259-267. doi: 10.1093/heapro/15.3.259

Nutbeam, D. (2008). The evolving concept of health literacy. *Social Science & Medicine 67*, 2072-2078. doi:10.1016/j.socscimed.2008.09.050

Opennet. (2012). Burma (Myanmar). Retrieved from

https://opennet.net/research/profiles/burma

Paasche-Orlow, M. K., Parker, R. M., Gazmararian, J. A., Nielsen-Bohlman, L. T., & Rudd, R. R. (2005). The prevalence of limited health literacy. *Journal of General Internal Medicine, 20*(2), 175–184. doi: 10.1111/j.1525-1497.2005.40245.x

Patton, M. (2002). *Qualitative evaluation and research methods (3rd ed).* Thousand Oakes, CA: Sage.

Paus, T., Keshavan, M., & Giedd, J. N. (2008). Why do many psychiatric disorders emerge during adolescence? *Nature Reviews Neuroscience 9*(12), 947-957. doi: 10.1038/nrn2513

Pink, S. (2011). Multimodality, multisensoriality and ethnographic knowing: Social semiotics and the phenomenology of perception. *Qualitative Research,11*(3), 261-276. doi: 10.1177/1468794111399835

Perry, G. J., & Weldon, S. (2005). Consumer health informatics research: Implications for consumers, health information professionals and researchers. *Journal of Consumer Health on the Internet, 9*(2), 1-11. doi: 10.1300/J381v09n02_01

Pleasant, A., McKinney, J., & Rikard, R. V. (2011). Health literacy measurement: A proposed research agenda. *Journal of Health Communication: International Perspectives, 16*(3), 11-21. doi:10.1080/10810730.2011.604392

Porter, A.C. (2002). Measuring the content of instruction: Uses in research and practice. *Educational Researcher, 31*(7), 3-14. doi: 10.3102/0013189X031007003

Public Health Agency of Canada (PHAC). (2112). *Risk factor atlas – obesity*. Retrieved from http://www.phac-aspc.gc.ca/cd-mc/atlas/index-eng.php.

Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000).

Daily well-being: The role of autonomy, competence, and relatedness. *Personality and Social Psychology Bulletin, 26*, 419-435. doi: 10.1177/0146167200266002

Rey-López, J. P., Vicente-Rodriguez, G., Ortega, F. B., Ruiz, J. R., Martinez-Gómez, D., De Henauw, S., Manios, Y., Molnar, D., Polito, A., Verloigne, M., Castillo, M. J., Sjöström, M., De Bourdeaudhuij, & I., Moreno, L. A. (2010). Sedentary patterns and media availability in European adolescents: The HELENA study. *Preventive Medicine, 51*, 50-55. doi:10.1016/j.ypmed.2010.03.013

Rootman, I., (2005). Literacy and human health: The role of education. *Education Canada, 45*(1), 39-41. Retrieved from http://www.cea-ace.ca/sites/default/files/EdCan-2005-v45-n1-Rootman.pdf

Rootman, I., Frankish, J., & Kaszap, M. (2007). Health literacy: A new frontier (2nd ed.). In M. O'Neill, S. Dupéré, A. Pederson, & I. Rootman (Eds.), *Health promotion in Canada: Critical perspectives* (pp. 61-74). Toronto, ON: Canadian Scholars' Press.

Rootman, I., & Ronson, B. (2005). Literacy and health research in Canada: Where have we been and where should we go? *Canadian Journal of Public Health, 96*, (Suppl. 2), 62-77. Retrieved from http://www.cpha.ca/uploads/portals/h-l/lithlth_e.pdf

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68-78. doi: 10.1037/0003-066X.55.1.68

Ryan, R. M., Patrick, H., Deci, E. L., & Williams, G. C. (2008). Facilitating health

behaviour change and its maintenance: Interventions based on self-determination theory. *The European Health Psychologist, 10*(1), 2-5. Retrieved from http://www.ehps.net/ehp/issues/2008/v10iss1_March2008/EHP_March_2008_All.pdf

Santrock, J. W. (2005). *Adolescence* (10th ed.). New York, NY: McGraw Hill. Print.

Schlegel, A. & Barry, H. III. (1991). *Adolescence: An anthropological inquiry*. New York, NY: Free Press.

Scribner, S., & Cole, M. (1981). *The psychology of literacy*. Cambridge: Harvard University Press.

Serek, J., Lacinová, L., & Macek, P. (2012). Does family experience influence political beliefs? Relation between interparental conflict perceptions and political efficacy in late adolescence. *Journal of Adolescence, 35*, 577–586. doi:10.1016/j.adolescence.2011.10.0 01

Simonds, S. (1974). Health education as social policy. *Health Education Monograph, 2*, 1-25.

Simovska, V. (2012). Case Study of a Participatory Health- Promotion Intervention in School. *Democracy and Education, 20*(1), 1-10. Retrieved from http://democracyeducationjournal.org/home/vol20/iss1/4.

Skinner, E. A., Furrer, C., Marchand, G., & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic? *Journal of Educational Psychology, 100*(4), 765–781. doi: 10.1037/a0012840

Stake, R. E. (1995). *The art of case study research.* Thousand Oakes, CA: Sage. Print.

Stake, R. E. (2005). Qualitative case studies. In N.K. Denzin, & Y. S. Lincoln. (Eds.),

The Sage handbook of qualitative research (3rd ed.) (pp. 443-466). Thousand Oakes, CA: Sage.

Steinberg, L., & Morris, A. S. (2001). Adolescence. *Annual Review of Psychology, 53*, 83-110. Retrieved from http://www.colorado.edu/ibs/jessor/psych7536-805/readings/steinberg_morris-2001_83-110.pdf

Steinberg, L., Vandell, D. L., & Bornstein, M. H. (2011). *Development: Infancy through adolescence*. Belmont, CA: Wadsworth Cengage Learning.

UNESCO. (2010). *EFA 2000 literacy assessment*. Retrieved from www.accu.or.jp/litdbase/efa/ http://www.unescobkk.org/fileadmin/user_upload/ict/Metasurvey/myanmar.pdf

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. M. Cole, V. John- Steiner, S. Scribner, & E. Souberman (Eds.). Cambridge, MA: Harvard University Press.

VanWynsberghe, R., & Khan, S. (2007). Redefining case study. *International Journal of Qualitative Methods, 6(*2). Retrieved from http://www.ualberta.ca/~iiqm/backissues/6_2/vanwynsberghe.htm

Wharf Higgins, J., Begoray, D., & MacDonald, M. (2009). A social ecological conceptual framework for understanding adolescent health literacy in the health education classroom. *American Journal of Community Psychology. 44*(3/4), 350-362. doi:10.1007/s10464-009-9270-8

Wharf Higgins, J., & Begoray, D. (2012). Exploring the borderlands between media and health: Conceptualizing 'Critical Media Health Literacy.' *The National*

Association for Media Literacy Education's Journal of Media Literacy Education 4(2), 136-148. Retrieved from http://jmle.org/index.php/JMLE/article/view/235

Woodgate, R. L., & Leach, J. (2010). Youth's perspectives on the determinants of health. *Qualitative Health Research 20*(9), 1173–1182. doi: 10.1177/1049732310370213

World Health Organization (WHO). (1986). *Ottawa Charter for Health Promotion.* Retrieved from http://www.who.int/healthpromotion/conferences/previous/ottawa/en/

World Health Organization (WHO). (2008). *10 facts on adolescent health.* Retrieved from http://www.who.int/features/factfiles/adolescent_health/en/index.html

World Health Organization (WHO). (2009). *Health promotion.* Retrieved from http://www.who.int/healthpromotion/conferences/7gchp/track2/en/

World Health Organization (WHO). (2011). *Myanmar.* Retrieved from http://www.who.int/countries/mmr/en/

World Health Organization (WHO). (2011). *Young people: health risks and solutions.* Retrieved from http://www.who.int/mediacentre/factsheets/fs345/en/index.html

World Health Organization (WHO). (2012). *The Impact of Chronic Disease in Myanmar*. Retrieved from http://www.who.int/chp/chronic_disease_report/media/impact/myanmar.pdf.

World Health Organization (WHO). (2013). *Social Determinants of Health*. Retrieved from http://www.who.int/topics/social_determinants/en/

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oakes, CA: Sage.

Yin, R. K. (2012). *Applications of case study research* (3rd ed.).

Thousand Oakes, CA: Sage.

Zarcadoolas, C., & Pleasant, A. (2009). Health literacy in the digital world. In J. Parker, & E. Thorson (Eds.), *Health communication in the new media landscape* (pp. 303-321). New York, NY: Springer.

Appendix A – Ethics Certificate

University of Victoria

Human Research Ethics Board

[illegible]

Certificate of Approval

PRINCIPAL INVESTIGATOR	**Christine Beer**	**ETHICS PROTOCOL NUMBER**	**11-457**
UVic STATUS:	**Ph.D. Student**	ORIGINAL APPROVAL DATE:	**19-Dec-11**
UVic DEPARTMENT:	**EDCI**	APPROVED ON:	**19-Dec-11**
SUPERVISOR:	**Dr. Deborah Begoray**	APPROVAL EXPIRY DATE:	**18-Dec-12**

PROJECT TITLE: **Critical Media Health Literacy: How does the theory work in high school curriculum?**

RESEARCH TEAM MEMBERS: None

DECLARED PROJECT FUNDING: **None**

CONDITIONS OF APPROVAL

This Certificate of Approval is valid for the above term provided there is no change in the protocol.

Modifications
To make any changes to the approved research procedures in your study, please submit a "Request for Modification" form. You must receive ethics approval before proceeding with your modified protocol.

Renewals
Your ethics approval must be current for the period during which you are recruiting participants or collecting data. To renew your protocol, please submit a "Request for Renewal" form before the expiry date on your certificate. You will be sent an emailed reminder prompting you to renew your protocol about six weeks before your expiry date.

Project Closures
When you have completed all data collection activities and will have no further contact with participants, please notify the Human Research Ethics Board by submitting a "Notice of Project Completion" form.

Certification

This certifies that the UVic Human Research Ethics Board has examined this research protocol and concluded that, in all respects, the proposed research meets the appropriate standards of ethics as outlined by the University of Victoria Research Regulations Involving Human Participants.

Dr. Rachael Scarth
Associate Vice-President, Research

Certificate Issued On: 19-Dec-11

11-457 Beer, Christine

Appendix B – Principal Letter and Project Overview

University of Victoria
PO Box 3010
Victoria, British Columbia
V8W 3N4
Canada

January 9, 2011

Mr. Michael Roberts, High School Principal
International School of Myanmar
W-22/24, Mya Kan Thar Housing, 5th Quarter
Hlaing Township
Yangon, Myanmar

RE: Request for permission to conduct research

Dear Michael:

I am writing to request permission to conduct a research study, *Critical Media Health Literacy: How does the theory work in high school curriculum?*, at the International School of Myanmar. If approved, this study will be conducted under the supervision of Dr. Deborah Begoray of the Department of Curriculum and Instruction,University of Victoria. Additionally, I am writing to request permission to invite high school students enrolled in the Graphic Design/Web Design course, which I teach, to participate in the study. The proposed study will examine how the critical media health literacy works in a high school curriculum, and the study will examine the presence of critical media health literacy in the students who choose to participate. This letter contains an overview of importance, benefits and risks of the project, background on the research problem, and a project outline indicating at what points student and teacher/administrator participants will be involved in the research.

Importance, Benefits & Risks:

The proposed study concerns critical media health literacy as a theoretical concept for high school education (Begoray, Cimon & Wharf Higgins, 2010; Begoray, 2011). Research has shown that critical aspects of literacy are relevant to high school students' conscious actions and empowerment in the domains of health and media (Begoray & Bannister, 2005; Begoray, Wharf Higgins, & MacDonald, 2009; Begoray, Cimon & Wharf Higgins, 2010; Begoray, 2011; Bergsma, 2004; Berkman, Davis & McCormack, 2010; Kickbush, 2001; Kickbush, 2007; Levin-Zaamir, Lemish & Gofin, 2011; Nutbeam, 2000; Nutbeam, 2008; Zarcadoolas, Pleasant & Greer, 2005; Wharf-Higgins, 2000).

Little is known about the critical literacy, health literacy, and media literacy of high school students in Myanmar or about the relationship to students' health promoting behaviours. Further compounding the problem is the lack of research on the state of health of high school students in Myanmar or about the students' concepts of health.

Participation in this study will contribute to new knowledge about how Myanmar high school students' use of digital media influences health literacy and ultimately health through what is termed 'critical media health literacy' (Begoray, Cimon & Wharf Higgins, 2010; Begoray, 2011). Participants will choose a health issue of relevance to the entire group of study participants, and then the participants will work together on a digital media project to explore and take action on the issue. There are no known risks to participants.

Background:

Previous research has indicated a relationship between health literacy and health outcomes in children, adolescents and adults (Rootman, Frankish & Kaszap, 2007; Schwartzberg, Vangeest & Wang, 2005). As a result

of ongoing research into the impact of school curriculum on health literacy and media literacy, critical media health literacy has emerged as a theoretical concept for high school curriculum and health promotion (Begoray, 2011, Begoray, Cimon & Wharf Higgins, 2010). Educational curriculum must address critical media health literacy, especially as people around the world increase their use of media content and digital information and communication technologies for evaluation and communication of health issues that are relevant to their lives (Alpay, Verhoef, Bo, Te'eni & Zwetsloot-Schonk, 2009; Begoray, Cimon & Wharf Higgins, 2010; Keselman, Logan, Smith, Leroy & Zeng-Treitler, 2008; Lupiáñez-Villanueva, Angel Mayer & Torrent, 2009; Nobel 2006; Marschollek, Mix, Wolf, Effertz, Hauxi & Stienhagen-Theissen, 2007; McCray, 2010; Perry & Weldon 2005; Zaracadoolas & Pleasant, 2010).

There is lack of research about the presence of critical literacy, health literacy, and media literacy in high school populations of Myanmar. There is also a lack of research about the implications of these literacies on the health issues faced by this population.

Looking to the broader geographical area of Southeast Asia, several health issues are treated as priorities by United Nations' organizations and by researchers identified in a literature search. Three of the top health priorities for high school age students in Southeast Asia are reproductive health promotion, HIV prevention, and mental health aspects of reproductive health (WHO 2010; WHO, 2011).

Based on Myanmar-approved studies of adolescent risk behaviours, the Ministry of Health in Myanmar reported, "most young people in Myanmar have misconceptions about HIV and a very small percentage know about prevention" (WHO, Adolescent Health: Factsheet Myanmar 2007). International aid organizations have reported HIV/AIDs, Malaria, Tuberculosis, Trachoma, Leprosy, and childhood diseases as the major health risks for adolescents in Myanmar (James, 2005). Aid organizations develop programs to reduce health risks, yet there appears to be a lack of health promotion programming to educate adolescents about prevention and engage them in health promoting actions. But, it would be difficult to develop relevant programming before involving high school students in research to explore their critical capacities in health and media use, or to explore the health issues relevant to their lives.

Project Outline:

The digital media health project will take approximately one third of student class time and will be one of three projects which students will complete during the course. Following is an outline of the research project. Group 1A student participants, Group 1B student participants, and Group 2 teacher and administrator participants will be involved as indicated in the digital media health project:

Initiate project

1. Gain project approval from UVic Human Research and Ethics Board
2. Gain project approval from ISM principal
3. Recruit and request consent of participants for case study and participatory action research project – Groups 1A, 1B, and 2
4. Examine current primary research in literature
5. Gather and interpret emerging themes and questions from literature

Exploratory Case Studies

Collect data

6. Design semi-structured interview protocols for case studies
7. Interview case study participants – Group 1A
8. Transcribe interview data
9. Record daily personal observations and perspectives

Analyze and interpret data

10. Analyze the collected data for emerging themes
11. Provide Case Study transcripts to Group 1A participants for feedback – Group 1A

Descriptive Case Studies

Develop a plan for a media-health project

12. Discuss health issues – Group 1B and 2
13. Identify priority order of the issues – Groups 1B and 2
14. Devise an approach for investigating one health issue – Group 1B and 2

15. Develop individual web pages to explore the chosen health issue and its practical solutions – Group 1B
16. Begin online individual journals – Group 1B
17. Begin online group discussion (social media blog) – Group 1B and 2

Collect data

19. Record daily field notes
20. Record daily personal observations and perspectives
21. Record digital multi-media text (e.g., video, audio, photo, written texts) created by students as part of their individual web pages – Group 1B
22. Record discussions of the health issue and web pages – Group 1B and 2

Analyze and interpret data

23. Analyze the collected data
24. Researcher to present a preliminary summary of findings to participants – Groups 1A, 1B, and 2
25. The detailed project results will be reported in my dissertation

I am seeking your permission to work with high school students because their participation will contribute to the understanding of how curriculum affects the particular way the students develop abilities for critical analysis of digital media related to health issues. My intension is to create a local understanding of this phenomenon and improve the design of curriculum processes which promote health for high school students situated in Myanmar. I look forward to your response. Please contact me if you require further information.

Sincerely,

Christine Beer
Graduate Researcher
Department of Curriculum and Instruction
University of Victoria
Email: cmbeer@uvic.ca

Appendix C – School Staff Letter and Consent Form

School Staff Participants
Letter and Consent Form

Proposed Research Study

Critical Media Health Literacy: How does the theory work in high school curriculum?

You are invited to participate in the proposed study which will examine critical media health literacy as a theoretical concept for high school education. This letter provides the background and an overview of the study. The study is being conducted by Christine Beer, a graduate student in the Department of Curriculum and Instruction at the University of Victoria, Faculty of Education. Christine's supervisor is Dr. Deborah Begoray. The researcher and researcher's supervisor can be contacted as follows:

Christine Beer	Researcher	Faculty of Education, University of Victoria	cmbeer@uvic.ca +95 662866 ext 517
Deborah Begoray, PhD	Professor of Language and Literacy	Faculty of Education, University of Victoria	dbegoray@uvic.ca +1 250-721-7847

Importance, Benefits & Risks

People around the world are increasing their use of media content and digital information and communication technologies for evaluation and communication of health issues. Literacy is key to this process. Literacy is more than reading and writing. In the areas of media and health, literacy is how the individual reads, critiques, analyzes, communicates and acts on the health information presented as media and through media communications. Previous research has shown that a person's evaluation and communication of health information and resulting behaviour towards health is related to the person's literacy in health and media.

Little is known about the critical literacy, health literacy, and media literacy of high school students in Myanmar. In addition, there is a lack of research about the relationship of critical, health and media literacies to Myanmar students' health promoting behaviours. Health promoting behaviours are the abilities of high school students to understand health and media information and use the information to act in ways that improve their health.

The theoretical concept which will be examined in this study is critical media health literacy. This concept brings together concepts of health literacy, media literacy, and critical literacy. Critical media health literacy is a concept which attempts to describe the effects of media modes and messages on an individual's health beliefs and behaviors. Research has shown that high school students' ability to critically interact with media is important to the ways that the students act in situations that impact their health.

Given the lack of research with high school students in Myanmar, this research project will examine how students' interactions with media and health are related to the students' literacy in the content areas of media and health. In addition, this research project will examine how students carry out purposeful actions for the benefit of their own health. Your participation will contribute to new knowledge about how Myanmar high school students' use of digital media influences health literacy and ultimately health through what is termed 'critical media health literacy'.

Participants will choose a health issue relevant to the entire group of study participants, and then the participants will work together on a digital media project to explore, discuss, and take action on the health issue. There are no known risks to participants.

Expectations for Participating in the Research

Your participation in this research study is completely voluntary and if you decide to participate your explicit consent is required. You are invited to participate in a digital media health project that will take place as part of the Web Design between January 1st and May 31st 2012 at the high school of the International School of Myanmar. You are being invited because you are involved in an aspect of health, media or literacy education at the high school of the International School of Myanmar. Your participation will require approximately 3 hours of online time for discussions and approximately 3 hours for in-class discussions.

Participants will be involved in the collaborative development of a digital media health project. The school's mission states that critical thinking strategies across subjects, the development of healthy lifestyles, and the role of technology in student learning are valued components of the curriculum. The focus of the digital media health project will be a health issue that is relevant to the participants. The project will use web site software and web blogs to facilitate and track participants' exploration of the health issue.

The online and in-class discussions will be digitally recorded, and the researcher will keep a journal of observations. Transcripts of the data made by the researcher will be made available to participants in order for participants to offer corrections and clarification to the researcher's observations.

Participants will not be offered any reward to participate, nor will there be any penalty for non-participation. You can withdraw from participation at any time without consequence or explanation. All video, audio, photo, and written data gathered from you will not be used.

Data collected from online journals and online discussions will be anonymous at point of response or input. The researcher's observations, transcripts, and the data collected from the digital multi-media texts will be coded by the researcher so that participant names are not used. Multi-media texts that are in the forms of videos and photos will only be used by the researcher for analysis; videos and photos will not be used for dissemination. The information you provide will therefore remain confidential. The only people who will have access to the confidential information will be the researchers associated with the project.

Your participation in the digital media health project will be observed by the researcher, and the digital media health project will be analyzed by the researcher.

All information pertaining to this study will be stored in a locked cabinet in the locked residence of the researcher. Electronic information will be stored on a password protected computer and also in locked cabinet of the researcher. The identifying features of the information will be disposed of within 2 years of collection. The information will be disposed of in a confidential manner.

The results of this research will be made available to all participants in the context of research, a thesis, conference presentations and/or publication in academic journals associated with the Faculty of Education, University of Victoria.

Informed Consent

I agree to take part in the above University of Victoria research. I have had the project explained to me, and I have read the participant guide, which I will keep for my records. Being part of the research is voluntary and I can leave at any stage without being disadvantaged in any way.

I understand that agreeing to take part means that I am willing to be observed during my participation in the collaborative development of a digital media health project.

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party. Due to the nature of the group project, I understand that my identity will be known to some other research participants.

Further use of data
I agree that the information provided can be used in the context of research theses, conference presentations and/or publication in academic journals associated with the University of Victoria.

Upon completion of this project, the researcher may want to use words and data collected from this project for other educational purposes including but not limited to presentations to peers at conferences, for further research or to students in lectures. Your signature below indicates that you understand the above conditions of participantion in this study, that you have had the opportunity to have your questions answered by the reseracher, and that you agree to participate in this research project.

Name of Participant	_Signature_	_Date_

A copy of this consent will be given to you, and a copy will be kept by the researcher.

You may verify the ethical approval of this study, or raise any concerns you might have, by contacting the:

Human Research Ethics Office, University of Victoria

Appendix D - Student Letter and Consent Form, English

Student Participants Letter and Consent Form

Proposed Research Study

Critical Media Health Literacy: How does the theory work in high school curriculum?

You are invited to participate in the proposed study which will examine critical media health literacy as a theoretical concept for high school education. This letter provides the background and an overview of the study. The study is being conducted by Christine Beer, a graduate student in the Department of Curriculum and Instruction at the University of Victoria, Faculty of Education. Christine's supervisor is Dr. Deborah Begoray. The researcher and researcher's supervisor can be contacted as follows:

Christine Beer	Researcher	Faculty of Education, University of Victoria	cmbeer@uvic.ca +95 662866 ext 517
Deborah Begoray, PhD	Professor of Language and Literacy	Faculty of Education, University of Victoria	dbegoray@uvic.ca +1 250-721-7847

Importance, Benefits & Risks

People around the world are increasing their use of media content and digital information and communication technologies for evaluation and communication of health issues. Literacy is key to this process. Literacy is more than reading and writing. In the areas of media and health, literacy is how the individual reads, critiques, analyzes, communicates and acts on the health information presented as media and through media communications. Previous research has shown that a person's evaluation and communication of health information and resulting behaviour towards health is related to the person's literacy in health and media.

Little is known about the critical literacy, health literacy, and media literacy of high school students in Myanmar. In addition, there is a lack of research about the relationship of critical, health and media literacies to Myanmar students' health promoting behaviours. Health promoting behaviours are the abilities of high school students to understand health and media information and use the information to act in ways that improve their health.

The theoretical concept which will be examined in this study is critical media health literacy. This concept brings together concepts of health literacy, media literacy, and critical literacy. Critical media health literacy is a concept which attempts to describe the effects of media modes and messages on an individual's health beliefs and behaviors. Research has shown that high school students' ability to critically interact with media is important to the ways that the students act in situtations that impact their health.

Given the lack of research with high school students in Myanmar, this research project will examine how students' interactions with media and health are related to the students' literacy in the content areas of media and health. In addition, this research project will examine how students carry out purposeful actions for the benefit of their own health. Your participation will contribute to new knowledge about how Myanmar high school students' use of digital media influences health literacy and ultimately health through what is termed 'critical media health literacy'.

Participants will choose a health issue relevant to the entire group of study participants, and then the participants will work together on a digital media project to explore, discuss, and take action on the health issue. There are no known risks to participants.

Expectations for Participating in the Research

Your participation in this case study is completely voluntary and if you decide to participate your explicit consent is required. You are invited to participate in interviews with the researcher. The interviews will take place between January 1st and May 31st 2012 at the high school of the International School of Myanmar. Six one hour interviews will be conducted over this time period. Interviews will take place before and after school, or at your convenience during normal school hours. Individual interviews will be digitally recorded, and transcripts will be created from audio recordings. Transcripts of the data made by the researcher will be made available to participants in order for participants to offer corrections and clarification to the researcher's observations.

Case study participants will not be offered any reward to participate, nor will there be any penalty for non-participation. You can withdraw from participation at any time without consequence or explanation. All audio, transcript, and written data gathered from you will not be used.

The researcher will protect the confidentiality of your responses by coding interview notes and transcripts so that participant names are not used. The information you provide will therefore remain confidential. The only people who will have access to the confidential information will be the researchers associated with the project.

All information pertaining to this study will be stored in a locked cabinet in the locked residence of the researcher. Electronic information will be stored on a password protected computer and also in locked cabinet of the researcher. The identifying features of the information will be disposed of within 2 years of collection. The information will be disposed of in a confidential manner.

The results of this research will be made available to all participants in the context of research, a thesis, conference presentations and/or publication in academic journals associated with the Faculty of Education, University of Victoria.

Informed Consent

I agree to take part in the above University of Victoria research. I have had the project explained to me, and I have read the participant guide, which I will keep for my records. Being part of the research is voluntary and I can leave at any stage without being disadvantaged in any way.

I understand that agreeing to take part means that I am willing to participate in individual interviews that require me to respond to questions concerning critical media health literacy posed by the researcher.

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

Further use of data
I agree that the information provided can be used in the context of research theses, conference presentations and/or publication in academic journals associated with the University of Victoria.

Upon completion of this project, the researcher may want to use words and data collected from this project for other educational purposes including but not limited to presentations to peers at conferences, for further research or to students in lectures. Your signature below indicates that you understand the above conditions of participantion in this study, that you have had the opportunity to have your questions answered by the reseracher, and that you agree to participate in this research project.

______________________	______________________	____________
Name of Participant	*Signature*	*Date*

A copy of this consent will be given to you, and a copy will be kept by the researcher.

You may verify the ethical approval of this study, or raise any concerns you might have, by contacting the:

Human Research Ethics Office, University of Victoria

Appendix E - Student Letter and Consent Form, Burmese

Student Participants Letter and Consent Form

အကြံပေးသုတေသနပြု လေ့လာမှု

"ရုပ်သံဆိုင်ရာ ကျန်းမာရေးအသိပညာကို လေ့လာအသုံးချနိုင်ခြင်း" သိဖို့ရှိသည် အထက်တန်းကျောင်း သင်ရိုးညွှန်းတမ်းတွင် မည်သို့ သက်ရောက်မှုရှိမည်နည်း။

အထက်တန်းပညာရေးအတွက် ပြောင်းလဲလာသော ရုပ်သံဆိုင်ရာ ကျန်းမာရေးအသိပညာကို သိဖို့ရှိဆိုင်ရာ အယူအဆအဖြစ် စစ်ဆေးမည့် အကြံပြုလေ့လာမှုတွင် ပါဝင်ဆောင်ရွက်ရန် သင့်အား ဖိတ်ခေါ်အပ်ပါသည်။ ဤစာတွင် လေ့လာမှု၏ ခြုံ့သုံးသပ်ချက်နှင့် နောက်ခံအကြောင်းအရာများကို ရှင်းလင်းထားပါသည်။ ဤလေ့လာမှုကို Victoria တက္ကသိုလ်၊ Curriculum နှင့် Instruction ဌာနမှ ဘွဲ့ရ ကျောင်းသူဖြစ်သော Ms. Christine Beer မှ ပြုလုပ်မည် ဖြစ်ပါသည်။ Christine ၏ Supervisor သည် Dr. Deborah Begoray ဖြစ်ပါသည်။ လေ့လာသူနှင့် လေ့လာသူ၏ Supervisor တို့ကို အောက်ပါအတိုင်း ဆက်သွယ်နိုင်ပါသည်။

Christine Beer	Researcher	Faculty of Education, University of Victoria	cmbeer@uvic.ca +95 662866 ext 517
Deborah Begoray, PhD	Professor of Language and Literacy	Faculty of Education, University of Victoria	dbegoray@uvic.ca + 1 250-721-7847

<u>အရေးပါမှု၊ ကောင်းကျိုးနှင့် ဆိုးကျိုးများ</u>

ကမ္ဘာအနှံ့အပြားတွင် ကျန်းမာရေးဆိုင်ရာ အချက်အလက်များကို စစ်ဆေးခြင်းနှင့် ဆက်သွယ်ခြင်းများအတွက် ရုပ်သံဆိုင်ရာအကြောင်းအရာများနှင့် သတင်းအချက်အလက်နှင့် ဆက်သွယ်ရေးနည်းပညာများကို ပွင့်ပွင့်ကျယ်ကျယ် အသုံးပြုလာကြပြီ ဖြစ်ပါသည်။ ထို့ကြောင့် ဤဖြစ်စဉ်အတွက် အဓိက သော့ချက်မှာ တတ်မြောက်ကျွမ်းကျင်မှုပင် ဖြစ်ပါသည်။ တတ်မြောက်ကျွမ်းကျင်မှုဆိုသည်မှာ ရေးတတ်၊ ဖတ်တတ်ရုံမျှထက် ပိုပါသည်၊ ရုပ်သံနှင့် ကျန်းမာရေးနယ်ပယ်တွင်၊ တတ်မြောက်ကျွမ်းကျင်မှုဆိုသည်မှာ တစ်ဦးချင်းစီက ရုပ်သံနှင့် ရုပ်သံဆိုင်ရာ ဆက်သွယ်ရေးများတွင် တင်ပြထားသော ကျန်းမာရေးသတင်းအချက်အလက်များကို မည်သို့ ဖတ်မည်၊ မည်သို့သုံးသပ်ဝေဖန်မည်၊ မည်သို့ လေ့လာမည်၊ မည်သို့ ဆက်သွယ်ဆောင်ရွက်မည် ဆိုသည်များ ဖြစ်ပါသည်။ ပြီးခဲ့သော လေ့လာချက်မှ တွေ့ရှိခဲ့သည်မှာ လူတစ်ယောက်၏ ကျန်းမာရေးသတင်း အချက်များကို စစ်ဆေးခြင်း၊ အပြန်အလှန် ဆက်သွယ်ခြင်းနှင့် ကျန်းမာရေးနှင့် ပတ်သက်သော လိုက်နာ ကျင့်ကြံဆောင်ရွက်မှုများသည် ထိုသူ၏ ကျန်းမာရေးနှင့် ရုပ်သံဆိုင်ရာ တတ်မြောက်ကျွမ်းကျင်မှုပေါ်တွင် မူတည်နေပါသည်။

မြန်မာနိုင်ငံမှ အထက်တန်းကျောင်းသားများသည် လေ့လာကျင့်သုံးခြင်းဆိုင်ရာ တတ်မြောက်ကျွမ်းကျင်မှု၊ ကျန်းမာရေးဆိုင်ရာ တတ်မြောက်ကျွမ်းကျင်မှု၊ ရုပ်သံဆိုင်ရာ တတ်မြောက်ကျွမ်းကျင်မှုများတွင် အနည်းငယ်အားနည်းနေပါသည်။ ထို့အပြင် လေ့လာကျင့်သုံးခြင်း၊ ကျန်းမာရေးနှင့် ရုပ်သံဆိုင်ရာ တတ်မြောက်ကျွမ်းကျင်မှုများ၏ ဆက်စပ်မှုများကို လေ့လာသုံးသပ်မှုနှင့် ကျန်းမာရေးတိုးတက်မှုအတွက် ပြုမူလိုက်နာကျင့်သုံးမှုများမှာ လျော့နည်းနေပါသေးသည်။ ကျန်းမာရေးတိုးတက်မှုအတွက် ပြုမူလိုက်နာကျင့်သုံးမှုဆိုသည်မှာ အထက်တန်းကျောင်းသားများ၏ ကျန်းမာရေးနှင့် ရုပ်သံသတင်းအချက်များတွင် နားလည်နိုင်စွမ်းနှင့် မိမိတို့၏ ကျန်းမာရေးတိုးတက်မှုအတွက် ထိုသတင်းအချက်များကို အသုံးပြုပြီး ပြုမူဆောင်ရွက်နေထိုင်နိုင်မှု ဖြစ်ပါသည်။

ဤပညာရပ်တွင် လေ့လာမည့်သီအိုရီဆိုင်ရာ သဘောတရားမှာ ရုပ်သံဆိုင်ရာ ကျန်းမာရေးအသိပညာကို လေ့လာ၍ လိုက်နာကျင့်သုံးနိုင်ခြင်းပင်ဖြစ်ပါသည်။ ဤသဘောတရားတွင် ကျန်းမာရေးဆိုင်ရာ တတ်မြောက်ကျွမ်းကျင်မှု၊ ရုပ်သံဆိုင်ရာ တတ်မြောက်ကျွမ်းကျင်မှု၊ လေ့လာကျင့်သုံးခြင်းဆိုင်ရာ တတ်မြောက်ကျွမ်းကျင်မှု ဆိုသည့် သဘောတရားများလည်း ပါဝင်ပါသည်။ ရုပ်သံဆိုင်ရာ ကျန်းမာရေးအသိပညာကို လေ့လာ၍ လိုက်နာကျင့်သုံးနိုင်ခြင်းဆိုသည်မှာ ရုပ်သံလိုင်းများနှင့် သတင်းအချက်များသည် လူတစ်ဦးတစ်ယောက်၏ ကျန်းမာရေးဆိုင်ရာ ယုံကြည်မှုနှင့် ပြုမူနေထိုင်မှုများကို မည်သို့အကျိုးသက်ရောက်သည်ကို ဖော်ပြရန် ကြိုးစားခြင်းပင် ဖြစ်ပါသည်။ လေ့လာမှုတွင် အထက်တန်းကျောင်းသားများ ရုပ်သံများနှင့် အပြန်အလှန်လေ့လာဆောင်ရွက်နိုင်စွမ်းသည် ကျောင်းသားများ၏ ကျန်းမာရေးအခြေအနေကို လွှမ်းမိုးနိုင်ခြင်း၏ အရေးကြီးပုံကို ဖော်ပြထားပါသည်။

မြန်မာနိုင်ငံမှ အထက်တန်းကျောင်းသားများနှင့် လေ့လာခြင်းများ နည်းပါးသည့်အလျောက်၊ ယခုလေ့လာမှုလုပ်ငန်းစဉ်သည် ကျောင်းသားများ၏ ရုပ်သံနှင့် အပြန်အလှန်ဆောင်ရွက်နိုင်မှုနှင့် ကျန်းမာရေးသည် ကျောင်းသားများ၏ ရုပ်သံနှင့် ကျန်းမာရေးတွင် တတ်မြောက်ကျွမ်းကျင်မှုများနှင့် မည်သို့ ဆက်စပ်နေသည်ကို လေ့လာစမ်းစစ်မည် ဖြစ်ပါသည်။ ထို့အပြင် ကျောင်းသားများသည် မိမိတို့ကိုယ်ပိုင်၏ ကျန်းမာရေးအတွက် အကျိုးကျေးဇူးရှိရန် ရည်ရွယ်ချက်ဖြင့် မည်သို့ ပြုမူနေထိုင်သည်ကို လေ့လာစမ်းစစ်မည် ဖြစ်ပါသည်။ မိမိတို့ ပါဝင်ဆောင်ရွက်မှုသည် မြန်မာနိုင်ငံမှ အထက်တန်းကျောင်းသူကျောင်းသားများ၏ ဒစ်ဂျစ်တယ်ရုပ်သံများကို အသုံးပြုမှုသည် ကျန်းမာရေးအသိပညာနှင့် "ရုပ်သံဆိုင်ရာ ကျန်းမာရေးအသိပညာကို လေ့လာကျင့်သုံးနိုင်ခြင်း" ဆိုသည့် ဝေါဟာရကို ဗဟုသုတ ရစေရန် ကူညီအားဖြည့်ပေးရာ ရောက်ပါသည်။

ပါဝင်ဆောင်ရွက်သူများသည် မိမိတို့၏ ပါဝင်လေ့လာသူအုပ်စုတစ်ခုလုံးနှင့် သက်ဆိုင်မည့် ကျန်းမာရေးနှင့် ပတ်သက်သော အကြောင်းအရာတစ်ခုကို ရွေးချယ်ရမည် ဖြစ်ပါသည်။ ထို့နောက် ပါဝင်သူများသည် ဒစ်ဂျစ်တယ်ရုပ်သံလုပ်ငန်းစဉ်တစ်ခုကို အတူတကွလေ့လာခြင်း၊ ဆွေးနွေးခြင်း၊ ထိုအကြောင်းအရာကို လိုက်နာဆောင်ရွက်ခြင်းများကို ပြုလုပ်ရမှာ ဖြစ်ပါသည်။

လေ့လာမှုတွင် ပါဝင်ဆောင်ရွက်ရန် မျှော်လင့်ချက်များ

ဤလေ့လာမှုတွင် သင်၏ပါဝင်ဆောင်ရွက်ခြင်းသည် သင်၏ဆန္ဒအရသာလျှင် ဖြစ်ပါသည်။ ပါဝင်ဆောင်ရွက်ရန် ဆုံးဖြတ်လျှင် သင်၏ တိကျရှင်းလင်းသော သဘောတူညီမှုကို လိုအပ်ပါသည်။ January 1st မှ May 31st, 2012 အတွင်း ISM အထက်တန်း၏ Web Design အတန်းတွင် ပြုလုပ်မည့် ဒစ်ဂျစ်တယ်ရုပ်သံဆိုင်ရာ ကျန်းမာရေးလုပ်ငန်းစဉ်တွင် ပါဝင်ဆောင်ရွက်ရန် ဖိတ်ခေါ်အပ်ပါသည်။ ဤသို့ ဖိတ်ခေါ်ရခြင်းမှာ သင်သည် ဤအတန်း၏ ကျောင်းသားတစ်ယောက်ဖြစ်သောကြောင့် ဖြစ်ပါသည်။ ဒစ်ဂျစ်တယ်ရုပ်သံဆိုင်ရာ ကျန်းမာရေးလုပ်ငန်းစဉ်သည် အတန်းချိန်၏ သုံးပုံတစ်ပုံခန့် အချိန်ယူမှာ ဖြစ်ပါသည်။ သင်းတန်းကာလအတွင်း ကျောင်းသားများပြီးမြောက်ရမည့် လုပ်ငန်းစဉ်သုံးခုအနက်မှ တစ်ခုလည်း ဖြစ်ပါသည်။

ပါဝင်သူများသည် ဒစ်ဂျစ်တယ်ရုပ်သံဆိုင်ရာ ကျန်းမာရေးလုပ်ငန်းစဉ်၏ တိုးတက်မှုများအတွက် အခြားသူများနှင့် ပူးပေါင်းပါဝင်ဆောင်ရွက်ရမည် ဖြစ်ပါသည်။ ကျွန်ုပ်တို့ကျောင်း၏ သန္နိဋ္ဌာန်များထဲတွင် ဖော်ပြထားသော ဘာသာရပ်ဆိုင်ရာများတွင် လေ့လာသုံးသပ်၍ စဉ်းစားချင့်ချိန်တွေးခေါ်နိုင်စွမ်း၊ ကျန်းမာသော ဘဝနေထိုင်မှုပုံစံတိုးတက်မှု ကျောင်းသားများ၏ လေ့လာသင်ယူခြင်းများတွင် နည်းပညာပိုင်း၏အနေအထားမှုများသည် သင်ရိုးညွှန်းတမ်း၏ တန်ဖိုးရှိသော အစိတ်အပိုင်းများ ဖြစ်ပါသည်၊ ဒစ်ဂျစ်တယ်ရုပ်သံဆိုင်ရာ ကျန်းမာရေးလုပ်ငန်းစဉ်၏ ဦးတည်ချက်မှာ ပါဝင်ဆောင်ရွက်သူများနှင့် သက်ဆိုင်သော ကျန်းမာရေးနှင့် ပတ်သက်သည့် အကြောင်းအရာတစ်ခုကို ပြုလုပ်မှာ ဖြစ်ပါသည်၊ ဤလုပ်ငန်းစဉ်ကို ဆောင်ရွက်ရန် Web site Software များနှင့် Web Blogs များကို အသုံးပြုပြီး၊ ပါဝင်သူများ၏ ကျန်းမာရေးအကြောင်းအရာနှင့် ပတ်သက်၍ စူးစမ်းရှာဖွေမှုများကို လိုက်လံကြည့်ရှုစစ်ဆေးမှာ ဖြစ်ပါသည်။

ဤလုပ်ငန်းစဉ်တွင် ကျောင်းသားများသည် တစ်ယောက်ချင်းစီ၏ Web pages များ ဖန်တီးခြင်း၊ အတန်းတွင်းနှင့် online ဆွေးနွေးခြင်းများတွင် ပါဝင်ဆောင်ရွက်ခြင်းများ ပြုလုပ်ရမည် ဖြစ်ပါသည်။ Web pages များနှင့် Discussions များကို Computer ထဲတွင် မှတ်တမ်းတင်ထားပါမည်။ ပြီးလျှင် Researcher က ထိုလေ့လာတွေ့ရှိချက်များကို ဂျာနယ်တွင် မှတ်သားထားရှိပါမည်။ Researcher ၏ လေ့လာတွေ့ရှိချက် မှတ်တမ်းများကိုလည်း ပါဝင်ဆောင်ရွက်သူ ကျောင်းသားများပြပြင်အကြံပေးနိုင်ရန်၊ ရှင်းလင်းနိုင်ရန် ပြုလုပ်ပေးထားမှာ ဖြစ်ပါသည်၊

ပါဝင်ဆောင်ရွက်သည်ဖြစ်စေ၊ မပါဝင်သည်ဖြစ်စေ၊ ဆုပေးဒဏ်ပေးခြင်းများ ပြုလုပ်မည် မဟုတ်ပါ။ ပါဝင်ဆောင်ရွက်မှုများမှ နုတ်ထွက်လိုလျှင်လည်း ရှင်းပြစရာမလိုဘဲ မည်သည့်အချိန်တွင်မဆို နုတ်ထွက်နိုင်ပါသည်၊ ကျောင်းသားများဆီမှ ရသော အရုပ်၊ အသံနှင့် ဓာတ်ပုံများကိုလည်း အသုံးပြုမည် မဟုတ်ပါ။ Web Design သင်တန်းအတွက် ဤလေ့လာမှုတွင် ပါဝင်သည်ဖြစ်စေ၊ မပါဝင်သည်ဖြစ်စေ မည်သည့်နည်းနှင့်မျှ Grade ကို သိမ်းဆည်းမည် မဟုတ်ပါ၊ ဤလေ့လာမှုတွင် မပါဝင်ရန် ဆုံးဖြတ်လျှင်လည်း သင်တန်း၏ သင်ရိုးညွှန်းတမ်းအတိုင်း လိုက်နာဆောင်ရွက်နေသာဖြစ်ပြီး၊ သင်ဖန်တီးရှာဖွေခဲ့သော သတင်းအချက်အလက်များကို သုတေသန ပြုလေ့လာမှုတွင် ထည့်သွင်းတောက်ယူမည် မဟုတ်ပါ၊

Online ဂျာနယ်နှင့် ဆွေးနွေးခြင်းများမှ ရရှိသော သတင်းအချက်များကို တုံ့ပြန်သည့်အခါတွင်၎င်း ထည့်သွင်းသည့်အချိန်တွင်၎င်း အမည်မဖော်ပြဘဲ ပြုလုပ်သွားပါမည်။ Researcher ၏ တွေ့ရှိချက်များ မှတ်တမ်းများ၊ ဒစ်ဂျစ်တယ်ရုပ်သံ အားသားများမှ ရရှိသောအချက်အလက်များကို Code ဖြင့်သာ မှတ်သားထား

မည်ဖြစ်ပြီး ပါဝင်သူများ၏ အမည်များကို အသုံးပြုမည် မဟုတ်ပါ။ ဗီဒီယိုနှင့် ဓါတ်ပုံများ၊ ရုပ်သံစာသားများကို Researcher က လေ့လာမှုပြုရန် အတွက်သာ အသုံးပြုမည်ဖြစ်ပြီး ဖြန့်ဝေခြင်းများ ပြုလုပ်မည် မဟုတ်ပါ။ ကျွမ်းကျင်သူထံမှ ရရှိသော သတင်းအချက်အလက်များသည် ကိုယ်ပိုင်လျှို့ဝှက်ချက်အဖြစ်သာ တည်ရှိမည် ဖြစ်ပါသည်။ ထိုကိုယ်ပိုင်လျှို့ဝှက်သတင်းအချက်အလက်များကို တွေ့ရှိအသုံးပြုနိုင်သူများမှာ ဤလုပ်ငန်းစဉ်နှင့် သက်ဆိုင်သော Researcher များသာ ဖြစ်ပါသည်။

ဒစ်ဂျစ်တယ်ရုပ်သံဆိုင်ရာ ကျန်းမာရေးလုပ်ငန်းစဉ်တွင် သင်၏ပါဝင်ဆောင်ရွက်ခြင်းများကို Researcher မှ လေ့လာသုံးသပ်မှာ ဖြစ်ပြီး ဤလုပ်ငန်းစဉ်ကို အသေးစိတ်ခွဲခြမ်းစိတ်ဖြာ လေ့လာမှာ ဖြစ်ပါသည်။

ဤလေ့လာမှုတွင် ပါဝင်သော သတင်းအချက်အလက်များအားလုံးကို Researcher က ဗီရိုထဲတွင် လုံခြုံစွာ သော့ခတ်သိမ်းဆည်းထားမှာ ဖြစ်ပါသည်။ Electronic သတင်းအချက်များကိုလည်း Password ပေးထားသော Computer ထဲတွင် သိမ်းဆည်းထားမှာ ဖြစ်ပါသည်။ လေ့လာမှုအတွက် အသုံးပြုသည့် သတင်းအချက်အလက်များကိုလည်း ရရှိပြီးချိန်မှစ၍ (၂)နှစ်အတွင်း ဖျက်သိမ်းပစ်မှာ ဖြစ်ပါသည်။ ထိုသတင်းအချက်အလက်များကို စွန့်ပစ်ဖျက်ဆီးသည့်အခါတွင်လည်း လျှို့ဝှက်ခြင်းနည်းလမ်းဖြင့်သာ ပြုလုပ်ပါမည်။

ဤသုတေသနလေ့လာမှု၏ ရလဒ်များကိုလည်း University of Victoria မှ ပညာရေးနှင့် ပတ်သက်သော သုတေသနပြုမှုများ၊ စာတမ်းများ၊ အစည်းအဝေးတင်ပြချက်များ၊ ပညာရေးဂျာနယ်ထုတ်ပြန်မှုများတွင် ပါဝင်ဆောင်ရွက်သူများကို တွေ့ရှိသိရှိစေမှာ ဖြစ်ပါသည်။

အသိပေးခွင့်ပြုချက်

University of Victoria ၏ သုတေသနပြုလေ့လာမှုတွင် ပါဝင်ဆောင်ရွက်ရန် သဘောတူညီပါသည်။ ထိုလုပ်ငန်းစဉ်အကြောင်းကိုလည်း နားလည်သိရှိပြီး ဖြစ်ပါသည်၊ ပါဝင်သူများအတွက် သိရှိမှတ်သားရမည့် လမ်းညွှန်ချက်များကိုလည်း ဖတ်ရှုပြီး ဖြစ်ပါသည်၊ ဤသုတေသနပြုမှုတွင် ပါဝင်ခြင်းမှာ မိမိဆန္ဒအရသာလျှင် ဖြစ်ပြီး ပြည်သည့်အချိန်တွင် မဆို မည်သို့သော ဆိုးကျိုးမျှ မရှိဘဲ နုတ်ထွက်ခွင့်ရှိပါသည်ဟု နားလည်ပါသည်။

ပါဝင်ဆောင်ရွက်ရန် သဘောတူညီခြင်းဖြင့် မိမိဒစ်ဂျစ်တယ်ရုပ်သံဆိုင်ရာကျန်းမာရေးလုပ်ငန်းစဉ် ဖွံ့ဖြိုးတိုးတက်ရန် ပူးပေါင်းဆောင်ရွက်မှုများကို လေ့လာသုံးသပ်မည်ကို ကျေနပ်လက်ခံပါသည်ဟု နားလည်ပါသည်၊

မိမိရှာဖွေရရှိထားသော သတင်းအချက်များသည် လုံခြုံစိတ်ချရပြီး၊ လုပ်ငန်းစဉ်၏ တင်ပြချက်များနှင့် တခြားမည်သည့်အဖွဲ့အစည်းကိုမျှ မည်သူမည်ဝါ၏သတင်းအချက်များဟူ၍ ဖော်ပြမည် မဟုတ်ဟု နားလည်ပါသည်။ အဖွဲ့လိုက်ဆောင်ရွက်ရသော လုပ်ငန်းစဉ်ဖြစ်သည့်အလျောက် မိမိမည်သူမည်ဝါ ဆိုသည်ကို အခြားသော သုတေသနတွင် ပါဝင်ဆောင်ရွက်သူ အဖွဲ့သားများက သိလိမ့်မည်ဟု နားလည်လက်ခံပါသည်။

သတင်းအချက်အလက် အသုံးပြုမှု ဖြည့်စွက်ချက်

ရရှိထားသော သတင်းအချက်အလက်များကို သုတေသနစာတမ်းများ၊ အစည်းအဝေးတင်ပြချက်များ University of Victoria နှင့် သက်ဆိုင်သော ပညာရေးဂျာနယ်ထုတ်ပြန်ချက်များတွင် အသုံးပြုနိုင်သည်ဟု သဘောတူလက်ခံပါသည်။

ဤလုပ်ငန်းစဉ်ပြီးမြောက်သောအခါတွင်လည်း ရရှိထားသော သတင်းအချက်အလက်များကို Researcher မှ အခြားပညာရေးဆိုင်ရာ ရည်ရွယ်ချက်များဖြစ်သော အစည်းအဝေးတင်ပြချက်များ၊ ဆင့်ကဲ သုတေသနပြုမှုနှင့် ကျောင်းသားများအတွက် သင်ခန်းစာများတွင် အသုံးပြုနိုင်မည် ဖြစ်ပါသည်၊ အောက်တွင် ပါရှိသော မိမိ၏ လက်မှတ်သည် ဤလုပ်ငန်းစဉ်တွင် ပါဝင်ဆောင်ရွက်ရန် လိုအပ်သော အခြေအနေများ၊ သိလိုသမျှ မေးခွန်းများကို Researcher မှ ပြန်လည် ဖြေကြားပေးသော အခွင့်အရေးကို ရရှိပြီး ဤသုတေသန လုပ်ငန်းစဉ်တွင် ပါဝင်ဆောင်ရွက်ရန် သဘောတူပါသည်ဟု ညွှန်ပြနေသည်ကို နားလည်လက်ခံပါသည်။

__________________ __________________ __________________

ပါဝင်ဆောင်ရွက်သူအမည် လက်မှတ် နေ့စွဲ

ဤခွင့်ပြုချက် မိတ္တူတစ်ခုကို သင်ရရှိပြီး Researcher မှ မိတ္တူတစ်ခုကို သိမ်းထားမည် ဖြစ်ပါသည်။

ဤလေ့လာမှုနှင့်ပတ်သက်၍ လူမျိုးရေးဆိုင်ရာ ခွင့်ပြုချက်နှင့် သိလိုသည်များကို မေးမြန်းစုံစမ်းလိုလျှင် Human Research Ethics Office, University of Victoria သို့ ဆက်သွယ်စုံစမ်းမေးမြန်းနိုင်ပါသည်။

Appendix F – Unit Plan and Web Page Design Rubric

High Level Unit Plan

Unit theory: Universal Design for Learning (http://www.cast.org)
Unit contexts: A health issue chosen by the students as a group
Health issues chosen by each student for webpage designs
Unit topics: Health, Critical Media Literacy, Webpage Design,
Term weeks/hours: 20 weeks, 1.5 hour class sessions every other day

Learning Outcomes and Assessment

Critical Media Health Literacy competencies:

Skilled Capacities	*Accessing information* *Understanding information* *Interpreting information* *Reflecting on information* *Critically interacting with media based on beliefs* *Critically interacting with media based on motivations*
Expressions of Empowerment	*Making an informed decision for the self* *Making an informed decision as part of a community* *Advocating for structural changes to enhance health of the self* *Advocating for structural changes to enhance health of a community*
Competencies of Engaged Citizenship	*Making productively healthy decisions in a public space* *Expressing personal health beliefs and motivations in a public space* *Expressing socially inclusive health beliefs* *Expressing a sense of social responsibility* *Acting on a belief of social responsibility*

Web design competencies: (See rubric below)

Methods

Means of Representation, Expression and Action, and Engagement	Time Required	Materials and Media
Online social media blog Writing prompts: 1. Do you think about [student chosen health topic]? 2. How do you think your ideas of [student chosen health topic] are affected by your friends and family?	Student managed over duration of term, e.g 4 months	Blogging website with controlled publishing Non-identifying user ids for students

3. How do you think your ideas about [student chosen health topic] are affected by your online reading and conversations, such as on news websites or FaceBook? 4. How do you decide what information to use from websites? 5. Have you ever decided to change your behaviour because of something you saw in a website, television program, movie, or sports event? If so, why did you try to change?		
Webpage design project Design prompts: 1. What is the specific health issue you are investigating? Why? 2. What would be a compelling title? 3. What are the components of your webpage design and how will people use the components? (Think about images, colour, written messages and information, communication devices such as an email, chat or links) 4. How does your design relate to you? …to your peers and friends? 5. What views and choices of health themes and media content did you create, cite, or remix for the webpage design? Why? 6. How does your webpage design help you and help others? 7. How will the audience be able to evaluate the usefulness and credibility of the facts, opinions, images, interviews, and other forms of content presented on the page?	Student managed over duration of term	Webpage design software and lesson plans Sample web page designs for teacher-facilitated ‘practice’ critiques Demonstrations of how to use web design software
Face-to-face group discussions: 1. Gallery style critique session 2. Individual presentations of draft design 3. Individual presentation of final design	3 class sessions	Draft and final webpage designs

Media-Health Project Rubric: A web page about a health issue

	Points		
	1	2	3
Design	The web page design is not entirely appropriate to the intended purpose and audience.	The web page design is visually pleasing, although it may not be entirely appropriate to the intended purpose or its intended audience.	The web page design is visually pleasing, helps to deliver a specific topic and purpose of the web page, and is appropriate for its intended audience (i.e., high school students of this school). For example, design a title or question for the title that expresses your attitude and create your own content.
Layout	The web page layout is usable, but it has problems with clarity or placement of elements.	The web page layout is largely effective, although there may be some occasional problems with clarity or placement of elements.	The web page uses an effective and uncluttered layout, using background to enhance the readability of text and the appearance of graphics, and users don't have to scroll too much.
Images	Several images on the web page have problems with either design or mechanical presentation, and no images are original.	The images are well designed for the topic's purpose, although there may be some minor problems with either design or mechanical presentation.	Most of the images (photos, video, graphics, drawings) are original, express opinions of the author, and all images are well designed and mechanically effective, without distortion, excessive dithering, haloes or other negative graphic effects.
Text/Content	Text on the web page has a problem with either style or mechanics or both, and no text is original.	Text on the web page is readable and well written for the intended audience using some self-authored content, some expression of author's opinions, although there may be minor mechanical errors.	Text on the page is written and presented effectively for the intended audience, using readable fonts and text design and without major mechanical errors (grammar, punctuation, and spelling), including content written by you as web page author, citing sources, and expressing your views/opinions.
Navigation	A reader can get around the web page, but only with some difficulty.	The web page is well organized and easy to navigate for the most part based on the graphic design elements discussed in class, with clear relationships between pages. Some sections may be more difficult to find or there may be links which do not lead anywhere.	The web page is well organized and easy to navigate based on the graphic design elements discussed in class, links are appropriate, clearly labeled, and have a definite purpose.
Mechanics	The web page includes missing pictures or broken links, and is not readable by Firefox or Explorer browsers.	The web page includes missing pictures or broken links, but is readable by both Firefox or Explorer browsers.	Everything on the web page works: there are no missing graphics or broken links, and it can be read with Firefox or Explorer browsers.
HTML, XHTML, CSS	The XHTML/HTML code has incorrect or unnecessary tags, lacks proper nesting of tags, and repeated tags. The web page does not use CSS elements to control design, content and layout.	The XHTML/HTML code is largely clean, although there may be a few questionable tags. The web page uses CSS elements to control some portions of design, content and layout	The XHTML/HTML tags are nested and complete, a minimum of tags are used (use one tag with several attributes instead of repeated tags), header tags are used as headers; the web page name, including folders, pages, images, frames use lower case text with no spaces. The web page consistently uses CSS elements to control design, content, and layout.
Credibility	The web page leaves user wondering about its origin and sources.	The web page includes author(s), contact person with e-mail address (using pseudonyms), date created or updated, and no copyright infringement.	Author names, affiliations, and credentials are included for all content, contact person with e-mail address is presented (using pseudonyms), site explicitly states point of view, original content is easy to identify, material which is not the work of the web page author includes appropriate citations with no copyright infringemen, site includes date created or updated.

Possible points: 24