Drumming Up Health: A Case Study of Carleton University’s West African Rhythm Ensemble

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Abstract

There is recent, compelling research that clearly documents the positive role that music-making plays in an individual’s and community's well-being (Stige 2006, Thaut 2013, Turino 2008). Rhythm, in particular, has been shown to connect people with each other, reduce stress and anxiety, and promote feelings of empathy and community (Berlyne 1971, Clift & Hancox 2010, Thaut, 2013). The vibrant and energetic experience of participating in a drum and dance ensemble underlines the powerful forces at play in participatory music, and the mental, physical and social health benefits it can provide. This thesis examines the ways in which participation in the Carleton University West African Rhythm ensemble contributes to positive health and well-being for the students involved. Through email and audio interviews, and written surveys, this case study provides persuasive evidence of the value of inclusion of this style of music and dance in educational, therapeutic and community settings.
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Introduction

Anxiety and depression among teens and young adults in North America are widespread and troubling (MHCCYC 2015). Adolescence¹ can be a particularly turbulent period in one’s life, and students entering university have many academic stresses to deal with as well as unfamiliar physical and social situations to navigate; mental, social and physical health can all diminish to some degree during this period. Emerging research in several disciplines reveals the positive impact of engagement with music on our mental, physical and social well-being. In my extensive work with adolescents in the field of world music education I have seen significant physical and psychological benefits for the participants in a drum and dance ensemble. Although there is a growing body of research regarding the impact of musical interventions on mental health and well-being, there is little documentation of the benefits of participation in West African music, specifically Ghanaian drumming and dancing. Much of the existing research focuses on clinical and community-based settings, and there is a lack of studies that explore the health benefits of group music-making for students at university. As founding director of the Carleton University West African Rhythm Ensemble (WARE), I am aware of the positive social, mental and physical rewards that are commonly present for members of the ensemble, and have also experienced benefits myself. Like many others, I have developed a growing interest in the connections between music and health, connections that are commonly acknowledged but are being increasingly substantiated through new areas of research (Clayton 2004, 2012, Thaut 2013). In undertaking this degree and research project, my intent was to investigate and provide evidence of the positive health effects of

¹ In public policy, adolescence has generally referred to ages 12-18, however recent research suggests that the brain continues to evolve and grow until age 25. (Johnson et al. 2009) This thesis will assume the wider age range when discussing adolescence.
drumming and dancing in an ensemble setting. The choice to do a case study of the Carleton University West African Rhythm Ensemble was straightforward as I had for years witnessed the positive impact of participation in this ensemble on its participants, I had regular access to the students, and was confident that through a mixture of data gathering methods, I could obtain a reasonable amount of evidence of the positive impact on health from involvement in the ensemble.

WARE primarily focuses on the study and performance of styles of music and dance originating from different ethnic groups in Ghana, including Ga and Ewe. For the most part, the ensemble engages with recreational repertoire that serves social functions in Ghana; repertoire that I have learned from various teachers in more than twenty-five years of studying this music. The Ewe repertoire is most often communicated on barrel drums with antelope skin heads played with sticks, in a combination of open (bounced) and closed (muted) notes. Rhythmic patterns interlock with each other resulting in composite patterns that have fascinated and been explored by many (Agawu 1995, Burns 2010, Chernoff, 1979, Friedson 2009, Locke 1987, Nketia 1974). Cyclical double bell and gourd rattle patterns propel the movement of the dancers, and songs are sung throughout, usually in a call and response fashion. Hand drumming styles of the Ewe and the Ga also incorporate a variety of sounds on carved cylindrical drums creating similar kinds of conversations between parts that are found in the stick drumming styles. The dense texture of the music and the social environment of drumming occasions encourage participants to become fully present in the event. Specific pieces and instruments will be discussed in Chapter 2. Through my readings I came across Thomas Turino’s (2008) framework of participatory music-making which both inspired and informed my path
forward, as it so effectively describes the elements that are present in the repertoire and setting of WARE that provide an environment that promotes and supports well-being. I will outline those elements further on in this introduction.

This thesis is organized around a framework of three areas of study and their overlap (Figure 1): 1) current research in music, health and well-being, 2) central concepts of musicking (Small 1998), participatory music-making (Turino 2008), and entrainment, and 3) Ghanaian repertoire and the experience of the members of the Carleton University West African Rhythm Ensemble. Each area will be explored on its own and then placed into dialogue with each other, to determine the areas of overlap and how each contributes to the potency of the connection between drumming and health.

Research in many disciplines is contributing compelling evidence of connections between music and well-being. The field of medical ethnomusicology offers an integrated approach to exploring the intersection of music and human health. It
recognizes and includes a broad range of “biological, psychological, social, emotional and spiritual domains” that are involved in any discussion around health (Koen, et al. 2008, 5). Medical ethnomusicology is reflective of the cross-disciplinary approach that is currently embraced by many researchers. In addition, since its origins are in the field of ethnomusicology, the ethnographic methods employed work well for the inclusion of multiple discourses, a model that I utilized in the design of this project. Until recently, the therapeutic use of music has been rooted in the social sciences. It is now is moving to neuroscience with the recent advances in brain research, as outlined by Michael Thaut in his book *Rhythm Music and the Brain: Scientific Foundations and Clinical Applications* (2013). Thaut provides new insights into the interaction between music and the brain, explaining the neuroscience behind the remarkable effects rhythm has on the brain both in everyday functions, as well as in rehabilitation. Thaut’s research provides a means of understanding how rhythm impacts our health, which I will illustrate through discussion of the Ghanaian drumming and dance repertoire with which WARE engages. Also in the realm of the brain, and central to my research, is the concept of entrainment, which neuroscientist Jessica Phillips-Silver defines as the “spatiotemporal coordination resulting from rhythmic responsiveness to a perceived rhythmic signal” (2010, 4). She states “the tremendous and flexible human capacities to produce music and dance are rooted in the capacity for entrainment to rhythmic signals in the physical and social environment” (Philips-Silver et al. 2010, 2). My exploration of the entrainment present in WARE is supported by the work of Martin Clayton (2004, 2012) who outlines the significance of entrainment for musical research. Entrainment and its connection to pleasure and the social coherence of a group are also reinforced by the concept of “participatory
discrepancies” (Keil and Feld 1994) which suggests that rhythm that is not too tightly aligned provides more satisfaction. Relationship is another important theme in this thesis, particularly as introduced by Christopher Small in his book *Musicking* (1998):

> The act of musicking establishes in the place where it is happening a set of relationships, and it is in those relationships that the meaning of the act lies. They are to be found not only between those organized sounds which are conventionally thought of as being the stuff of musical meaning but also between the people who are taking part, in whatever capacity, in the performance; and they model, or stand as metaphor for, ideal relationships as the participants in the performance imagine them to be: relationships between person to person, between individual and society, between humanity and the natural world and even perhaps the supernatural world (13).

Relationships are central to the learning and performance of WARE’s repertoire, as students navigate the aural tradition, engaging with the multi-faceted elements of singing, drumming, and dancing in a large ensemble. As previously mentioned, Thomas Turino (2008) provides an important framework for understanding the participatory nature of Ghanaian drum and dance music and the implications for community health and involvement. In his discussion of participatory musics throughout the world, Turino outlines the musical features, roles and values present in participatory musics that inspire participation and inclusion and I apply those factors specifically to the repertoire and setting of WARE to examine the intersections. Music and dance is an integral part of the social life of communities in Ghana (Agawu 1995, Friedson 2009, Locke 1987) and its migration to educational programs in North America (Dor 2014, Locke 2004,) offers similar social benefits to participants, due in part to the multi-sensory fabric of sound and movement (Burns 2010). Engaging with a form of participatory music can connect people. Turino suggests that music contributes to our understanding of ourselves, and that “music making and dancing provide a special type of activity for directly connecting with
other participants” (2008, 21). Social interaction has been recognized as a major determinant in overall health and well-being (Putnam 2000, Stige 2006, World Health Organization 1946), and isolation has been shown to negatively affect all forms of health (Putnam 2000); Ghanaian music and dance offers opportunities for both artistic and social interactions, fostering community.

It would be useful at this point to offer some clarifications of the health terms used in this thesis. The World Health Organization (WHO) regards health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (WHO 1946). In the specific research undertaken with members of the West African Rhythm Ensemble, I have chosen to differentiate between mental, social and physical health components, although it will become evident that there is an interconnectedness between the three. Elements of these terms are based on ideas put forward in the Mental Health Commission of Canada Youth Council’s (MHCCYC) 2015 report, and the Centre for Addiction and Mental Health’s (CAMH) 2013 report on child and youth mental health in Ontario. Positive mental health is often seen as a mediator between physical and social health and can have a major influence on the other two (CAMH 2013). Mental health discussions in this thesis will focus on resiliency, emotional literacy, academic and risk-taking skills, mental flexibility, the ability to overcome challenges and general attitudes surrounding self-worth (MHCCYC 2015).

Discussions around social health will include aspects of relationships, belonging, community, collective enjoyment, group problem solving, meaning and purpose. Physical health in this study refers to a person’s experience of fitness, body image, coordination, physical awareness and expression. A person’s physical health is often the most visible
sign of overall health and well-being, and several studies show links between mental health and physical health (CAMH 2013). From the above interpretations of mental, social and physical health, we can observe an interdependence among the three, which will become more evident in the findings of this research project.

**Methodology**

The intersection between, music, health and well-being is a highly individualized and complex juncture at which to undertake research. Multiple factors affect how individuals experience the connection between music and their own health. This is reflected in current research trends that call for a multi-faceted approach, using best practices from a variety of disciplines in order to provide comprehensive insight. Medical ethnomusicologists Therese West and Gail Ironson state that a combination of “pure and applied research approaches are essential to the whole process of music [and] medicine investigation” (2008, 417). Methodology for this thesis involved an interdisciplinary literature review to gather information from a variety of topics and fields, including Ghanaian music and dance, health and well-being; mental health of teens and young adults; music and neuroscience; music education; and uses of singing and drumming in music therapy programs. In addition, I undertook qualitative and quantitative fieldwork, analysis and interpretation. This specific research was done at the end of the fall 2015 academic term with members of the Carleton University West African Rhythm Ensemble (WARE), of which I am the artistic director. As the director, I am positioned well to navigate the multiple elements of the research project particularly in terms of understanding and interpreting the music and dance. However, I am also mindful that my
insider role could produce analysis that is overly subjective; careful adherence to the research principles outlined in the Tri-Council Policy on Research with Human Subjects and attention to the guidelines of research ethics officers at Carleton University encouraged objectivity and avoidance of conflicts of interest. Through Carleton University’s Research Office (CURO), I obtained ethics clearance for the quantitative and qualitative segments of the research, including design and approval of information letters, consent forms and interview and survey questions.

In keeping with a mixed design methodology, which is essential to exploring the link between health and music (West and Ironson 2008), three methods of data generation were employed: written surveys with current WARE members, audio interviews with current WARE members and email questionnaires with past WARE members. In addition, I have provided contextual information about the ensemble and my role as director as well as the outline of a typical rehearsal, my educational goals and strategies, and a description of the music in order to provide a complete view of the research project. The case study format was most suitable for this current research in order to focus efforts on gathering contextual information that could potentially be used as a foundation for later research that uses scientific methods such as physiological testing, which was not feasible for the scope of this study. Complementing the qualitative data for this project, I developed a quantitative survey, which established the degrees of impact that Ghanaian music and dance have on aspects of health for members of the West African Rhythm Ensemble. I also expanded my qualitative methods of data collection through observation, documentation, interviews and analysis in order to examine the physical, social and emotional realms of experience, providing a rich texture of individual perspectives.
The research findings of my project are organized around the three aspects of health I am examining: Mental, Social and Physical. Somewhat surprisingly, one of the common omissions in other studies examining the link between music and health is a description of the music itself. As West and Ironson suggest, any discussion of the benefits of music to health and well-being must include a detailed description of the music: “We need detailed information about the music itself in order to understand and interpret the results of any music study” (2008, 421). Describing the repertoire that WARE engages with will support my argument that the very nature of this style of music and dance is a major contributing factor to the perceived health benefits.

**Thesis Structure**

This thesis is comprised of five chapters, in addition to the introduction and conclusion. In this introduction, I have given an overview of the research project, including information about the case study and the importance of the topic as it relates to current research. I have also outlined the timeline and methodology of the research and the ethics protocol used. Further details about recruitment, consent and composition of respondents will appear in Chapter 4. I have presented the foundational concepts of this thesis: musicking, participatory music-making, and entrainment; I have also introduced terms related to health and well-being, and a reference to how they are being applied in this thesis. In Chapter 1, I present research on the connections between music and health and well-being from a variety of relevant disciplines such as medical ethnomusicology, neuroscience, music therapy, music education, and psychology, as well as information regarding current directions and concerns in the field of youth mental health in Ontario.
and across Canada. This information provides a scholarly context for the research project undertaken with the Carleton University West African Rhythm Ensemble (WARE). Chapter 2 provides the reader with background information for the WARE case study. This includes my experiences of Ghanaian music and dance, and how I came to be director of the ensemble and ethnographer of this study. In this chapter I also introduce the chosen setting for this research and provide a description of the ensemble and a typical rehearsal process. Information about the instruments and drum and dance repertoire undertaken by WARE during the fall of 2015 academic term is also provided. In Chapter 3 a more thorough account of the foundational concepts of musicking, participatory music-making, entrainment and participatory discrepancies is presented, in dialogue with the contextual information about WARE presented in Chapter 2. This sets the stage for the findings of the case study, highlighting musical and physical elements that contribute positively to the health benefits of participating in WARE. Chapter 4 further delineates the methods and rationale of research employed in this case study; it is divided into the three areas of data generation, listed here according to the nature of the data and the dates of its collection:

1. Written Surveys with current WARE members (December 2015)
2. Audio Interviews with current WARE members (December 2015-January 2016)
3. Email Questionnaire with past WARE members (May 2015-January 2016)

In each of these sections I describe the setting and sources of data, as well as methods of collection. An analysis of the information follows each description, using the headings of mental, social and physical health, as well as emergent themes coming from the material. In Chapter 5, an integrated discussion of the analysis is provided, utilizing material from all forms of data collection and placing it in dialogue with both the foundational concepts
of musicking, participatory music making, entrainment and the research on health and well-being presented in Chapter 1. In addition, I convey how the data provides evidence for positive health benefits of participating in WARE. The Conclusion provides final reflections regarding implications of the findings from this case study. I also discuss the limitations of this research, providing recommendations for further study.
Chapter 1: Making Connections: Research in Healing and Music

The positive impact of musical experiences on health and wellness is significant, and a growing body of interest and research in multiple fields is emerging to provide evidence of that impact. This chapter will examine relevant areas of inquiry from a variety of disciplines in a general manner, as well as present some specific studies that will give direct insight into my current research project. A gathering place for evidence of links between music and health can be found in the relatively new field of medical ethnomusicology. In the introduction to The Oxford Handbook of Medical Ethnomusicology, Benjamin Koen and colleagues define the field as “integrative research and applied practice that explores holistically the roles of music and sound phenomena…in any cultural and clinical context of health and healing” (2008, 4). The authors acknowledge the complex ways in which music and healing are intimately related to our “biological, psychological, social, emotional and spiritual domains of life, all of which frame our experiences, beliefs, and understandings of health and healing, illness and disease, and life and death” (2008, 4). Collaborations between researchers and scholars across disciplines are contributing to a wider pool of knowledge. These disciplines include the physical and social sciences, medicine, music and healing arts. Researchers in various areas of study are using ethnographic methods to develop extensive in-depth knowledge of the subject and to provide compelling perspectives for our understanding of the connections between music, health and well-being. Medical ethnomusicology is an important subject area to begin with in this chapter, not only because it encompasses many of the disciplines that are pertinent to this thesis, but because its two main areas of inquiry – medicine and ethnomusicology – lie at the heart
of my question: in what ways does participation in the Carleton University West African Rhythm ensemble contribute to positive health and well-being for the students involved?

Since the late nineteenth century, the Western world has shown a growing interest in the music and social practices of diverse cultures, and Ghanaian music and dance have long been the subject of ethnographic inquiry (see the work of Agawu 1995, Burns 2010, Chernoff 1979, Feld 2009, Locke 1987, 2004, Nketia 1974, among many others). Through the field of ethnomusicology, knowledge of music and healing in ceremonies and ritual around the world has informed our understanding of the connections possible between traditional healing and music. As Koen et al. remark, those with an interest in music, healing and health are “repeatedly confronted with a host of ancient and newly born theories that articulate a number of concepts about how music, sound, and related sociocultural factors and practices, as well as physical and metaphysical forces, are believed to facilitate health and healing” (2008, 10). If these multiple connections are so prevalent, why has it been historically difficult to provide empirical evidence to demonstrate those links? The authors suggest two obstacles to gathering evidence: first, the “centrality of the individual” – one’s experience is best understood from an individual’s own vantage point (Koen et al. 2008, 11); second, music “is a cultural phenomenon with infinitely diverse, power-laden meanings that are present at individual, group and global levels of culture” (Koen et al. 2008, 13). The complexity of both music and the individuals and communities who partake in it, is why multi-faceted research methods are essential and proving invaluable for providing a reliable and comprehensive understanding of the interactions between music and health. Recent research has been
able to apply these mixed-method approaches, and together with new information about the brain, can provide empirical evidence that was not possible before.

We know that music plays an important function in bringing people together; it provides pleasure, and produces feelings of well-being. Throughout history, music has been considered a useful tool for developing emotional expression, providing a distraction from pain and suffering, increasing social interaction and building community (LaGasse & Thaut 2012, 153). Neuroscience is one of the scientific areas that has recently seen a dramatic increase in studies illuminating the potent healing effects of music. New research into the functioning of the brain and body has provided us with a greater understanding of the power that rhythm has to unite people and provide health benefits. In *Rhythm, Music and the Brain*, Michael Thaut states that music is found in all known cultures throughout history, indicating that it may play more than an accompanying role in our biological and neurological functions (2013,114). Thaut has worked and published in the field of neuroscience from its early beginnings (see 1992, 1993, 1997, 2003, 2008) and he explains that the first indicators of the connection between music and the brain came in the 1990s with the discovery of the brain’s plasticity and ability to change based on experience. Thaut states “the brain that engages with music *is changed by that engagement*” (2013, 62 emphasis mine). This “reciprocal relationship” has led to important research into patients’ successful recovery from stroke and brain injury, as well as neurodegenerative diseases such as Parkinson’s, where music and rhythm have been employed as therapy (LaGasse & Thaut 2012, Thaut 2013, 62).

Thaut notes that rhythmic perception and production have received a lot of attention from researchers because “they form the most important organizing element in
the structure or language of music” (2013, 61). Neuroscientists Jessica Phillips-Silver and colleagues also assert that rhythm plays an evolutionary role in our development (2010). The concept of entrainment is central to their case. As noted in the introduction to this thesis, these authors define entrainment as the “spatiotemporal coordination resulting from rhythmic responsiveness to a perceived rhythmic signal” (Philips-Silver et al. 2010, 4). All organisms have the capacity to respond to external rhythm, such as patterns of day and night, weather, and tides, and these are necessary evolutionary tools. Humans have the added skill of being able to entrain to a wide variety of tempi, integrate what we hear into our minds and bodies, and then generate a rhythmic response to what we hear. This skill is important for communication, attracting individuals for mating, and gathering in groups. The integration of both the perception and production of rhythm makes it possible for humans to systematically alter rhythmic production, based on the rhythm we perceive in our environment (Philips-Silver et al. 2010). This enables us to achieve group synchrony, or social entrainment. Playing music together, dancing, and singing in a group are all forms of social and musical entrainment, but these are not only recreational pleasures. Philips-Silver et al. propose that this kind of synchrony promotes cooperation and affiliation, which can facilitate higher-level organization that needs real time processing of rhythmic information such as large scale building projects, collective foraging and predation. The ability of a community to drum and dance together can make these processes more efficient and effective (Philips-Silver et al. 2010).

Cross-disciplinary applications of entrainment have provided evidence of health benefits in a wide range of therapeutic fields. Links between entrainment and social skills have also been noted in research with children with autism (Accordinio et al. 2006).
Additional discussion of rhythmic entrainment and its application to the repertoire and experience of the Carleton University West African Rhythm Ensemble can be found in Chapter 3 of this thesis.

Research in biomedical fields such as neuroscience has supported findings in other disciplines that have traditionally relied more upon qualitative methods, strengthening the implications of the results. Thaut writes:

Brain research involving music has shown that music has a distinct influence on the brain by stimulating physiologically complex cognitive, affective, and sensorimotor processes. The fascinating consequence of this research for music therapy has been a new body of neuroscientific research that shows effective uses of music with therapeutic outcomes that are considerably stronger and more specific than those produced within the general concept of well-being (2013, 115).

This recent research into the functioning of the brain brings new insight into what is happening during participatory music-making, and in many cases, underpins the pursuits music therapy has been engaged with for many years. Thaut traces the history of music therapy in the United States as it evolved out of work being done in the psychology section of the Music Educators National Conference during the 1950s (2013, 62). He acknowledges the original intent of practitioners in music therapy who pursued the links between arts and medicine, but he notes that the field of neurobiology was not advanced enough at the time to support this intention.

Norwegian therapist Brynjulf Stige’s experience and research in community music therapy sessions suggest that musical interventions for promoting health involve a series of relationships, and not only the individual participation of the client or patient. In many music therapy situations, emphasis is on participation as “an individual activity” (Stige 2006, 122) without acknowledgement of the multiple and complex relationships
between all participants and the environment in which the activity is taking place. When we include these relationships, participation becomes more than the acquisition of knowledge and skills; it is about becoming part of an evolving community. Stige defines participation as:

…a process of communal experience and mutual recognition, where individuals collaborate in a socially and culturally organized structure (a community), create goods indigenous to this structure, develop relationships to the activities, artefacts, agents, arenas and agendas involved, and negotiate on values that may reproduce or transform the community (2006, 134, emphasis in original).

This line of thinking supports ethnography as an important method for examining links between music and health. The focus on relationships also reflects a movement in the general field of psychology. Psychologist David Paré has seen a shift in counselling, moving from the focus on the individual, to the “person-in-context” (2013 xxi), highlighting the importance of environment. This is similar to the ethnographic approach, which pays attention to various elements in a person’s life that can contribute positively to their mental, social and physical health. Paré states “therapy is not one magic ingredient rather it is the relationship that makes the difference. Many factors are at play” (2013, 23).

The concept of relationship and community arises often in discussions of mental health, particularly around issues of youth anxiety and depression. The paradox of being virtually connected to many people through social media, and at the same time experiencing feelings of isolation and loneliness is a common experience for many of today’s youth (CAMH 2013). Mental health is a complex term that, unlike social and physical health, suggests a sense of ill-health, especially in the health professions where it is often addressed (Weare 2000). This perception is slowly changing, as more awareness
is developing around the role positive mental health can play in overall health and well-being. Weare describes the traditional view of mental health as being only about the individual; however, current thinking views it as a social concept, involving skills such as resiliency and emotional literacy (Goleman 2005, Weare 2000, WHO 1986). The Mental Health Commission of Canada Youth Strategy Report defines the term this way:

Mental health is a state of well-being in which you can realize your own potential, cope with the normal stresses of life, work productively, and make a contribution to your community. Good mental health protects us from the stresses of our lives and can even help reduce the risk of developing mental health issues (MHCCYC 2015).

Adult mental illness can often be traced back to earlier years; the Mental Health Commission of Canada Youth Council (MHCCYC) reports that more than two-thirds of adults say their mental illness symptoms emerged in childhood (2015). Discussion around mental illness issues has been amplified among agencies across Canada that work with young people, as numbers of youth presenting at emergency rooms are increasing at an alarming rate (Gallagher, Storey Baker, and Gravelle 2014). Issues include depression, anxiety, eating disorders, obsessive-compulsive behaviours, non-suicidal self-injury (NSSI), as well as increased numbers of suicide attempts. Studies in the field of mental health point to the importance of the social environment surrounding individuals of all ages. The Toronto-based Centre for Addiction and Mental Health (CAMH) states that “providing a healthy environment in places where youth gather promotes positive mental health, which is a key component to overall health and well-being” (CAMH 2013, 1).

In their 2013 report Connecting the Dots: How Ontario Public Health Units are Addressing Child and Youth Mental Health, CAMH, together with partners Public Health Ontario and Toronto Public Health, gathered information on existing engagement
programs in the province of Ontario. From the information collected in 2013, there were a total of 325 community initiatives and specific programs in the province aimed at improving child and youth mental health. Programs targeted the development of social, emotional and life skills, as well as talk therapy, stress management, and anti-stigma programs. Surprisingly, out of more than 300 programs, only three identified themselves as arts-based, and none reported the use of music. One arts-based program used theatre arts, and the other two were visual-arts based. It would seem that research on the benefits of music for health and well-being is not finding its way to many of those who are delivering the programs. The programs listed are held in schools, as well as in community centres, counselling and health clinics, and they are led by committees, networks and coalitions. The CAMH report reveals that there are multiple sites and approaches being used to disseminate information and programs, without much communication or knowledge-sharing taking place. For instance Public Health is mandated to work with schools, but schools do not have a mandate to work with Public Health. This kind of one-way communication leads to a disturbing gap in the approach to mental health, a shortcoming that is slowly being addressed by different levels of government agencies as they aim to share resources. If they are slow to realize the power of the arts in relation to well-being, perhaps the impetus will come from individual communities, as they strive to solve social and health issues.

An example of a local program using a collaborative approach towards addressing youth mental health is the innovative Bridges-Passerelles program in Ottawa. In 2013, in response to the growing demand for emergency mental health services, the Children’s Hospital of Eastern Ontario (CHEO), the Royal Ottawa Health Care Group (“the Royal”),
the Youth Services Bureau (YSB), and Ottawa Public Health (OPH) joined forces to create the Bridges-Passerelles program, a sixteen-week program available to high-risk youth who suffer from mental health issues. Bridges-Passerelles works both as a preventative measure, averting emergency hospital care, as well as offering support services to help youth transitioning from hospitalization back to community and school life. Using a multi-pronged approach, teen clients work with counselors, registered nurses, psychiatrists, occupational therapists and clinical psychologists. They also participate in yoga and art classes, but until recently there had been no music classes. I introduced a drumming component into the program for four months in 2015 as part of my practicum course for this masters degree (Armstrong 2015a). Using hand drums, songs and clapping patterns from my knowledge of Ghanaian music, I led participants in drum sessions that involved acquiring information in a variety of ways, not only through verbal instruction. I anticipated that actions would speak more clearly and effectively than words for this kind of group, where verbal self-expression may be difficult. I did not have prior knowledge of the participants or their case histories, rather I was working solely from their emerging strengths during our bi-weekly sessions. The program was very well received and I have continued drumming with them as a volunteer. The Bridges-Passerelles style of intervention strives for youth engagement in and ownership of their own health and well-being (Gallagher, Storey Baker, and Gravelle 2014). This kind of personal agency is cited by the MHCCYC as an important factor in dealing successfully with mental health issues (2015, 11).

Personal agency is also a recurring theme in the research that is documented in the anthology *Creating Together: Participatory, Community-based, and Collaborative Arts*
Practices and Scholarship across Canada (2015). Editors Diane Conrad and Anita Sinner present a diverse array of effective youth-oriented programs that use the arts to address social issues. In particular, the Edmonton-based UNCENSORED program, which provides arts interventions for at-risk youth, is a valuable model to investigate because the youth were co-collaborators in the research. They participated by engaging with and educating local service providers – such as social workers, educators, and law enforcement officers – about what some of the issues facing youth were and how they might be addressed, contributing to positive change. The research was broad in scope and required quite a bit of time from the youth, so they were employed and paid to participate, thereby reframing their role from being a “subject” to being “active agents towards change” (Conrad et al. 2015, 26). In the UNCENSORED program, cultural activities and artistic methods were used at every step of the research, empowering the youth by building upon their strengths. Since many social problems stem from mental health issues such as feelings of isolation, stigma around identity issues, and lack of emotional skills, (Goleman 2005, Putnam 2000) a multi-disciplinary, contextual and collaborative approach to problem solving in research is ideal.

Building on strengths and the development of a sense of belonging seem to be key components to self-esteem, itself a factor in health and well-being. Anne Bowker’s research into sports and youth reveals two types of physical self-esteem: changes to the body resulting in a better self-image (highly important to teens) and skill acquisition and the development of competence, leading to greater overall self-esteem (2006). Like the Bridges-Passerelles program, participants in the West African Rhythm Ensemble are free to explore music and dance in a safe group environment. They are able to develop new
skills and abilities, which contribute to their self-esteem. Physical competence and health, alongside mental and social health, promote a stable, flexible and resilient individual. Bowker has also studied youth engagement in sports, and she highlights the importance of peer belongingness, as well as the importance of close relationships in positive youth development (Bowker et al. 2015). The implications of this work seem considerable for music-making and will be discussed further in chapter 5.

Music seems particularly well suited to address feelings of isolation and emotional regulation. Humans have both cognitive and emotional responses to music that can be measured in brain activity and physiological responses. Music-physiology researcher Eckart Altenmuller and colleagues write:

Music is probably the richest human emotional, sensorimotor, and cognitive experience. It involves listening, watching, feeling, moving and coordinating, remembering, and expecting. It is frequently accompanied by profound emotions resulting in joy, happiness, bittersweet sadness, or even in overwhelming peak experiences, which manifest themselves in bodily reactions like tears in the eyes or shivers down the spine. A large number of brain regions across various domains contribute to this musical experience (2012, 12).

Psychologist Daniel Goleman cites research from the field of psychoneuroimmunology that shows the interconnectedness of the biological pathways between the mind, the emotions and the body in his discussions of emotional intelligence (2005, 166); he writes, “The nervous system not only connects to the immune system, but is essential to proper immune function” (2005,167). Goleman also presents evidence from studies that suggest toxic emotions lead to suppressed immunity, particularly the emotions of anger, anxiety and depression (2005, 168). He also discusses the negative impact of social isolation, as research has shown that isolated individuals double their chances of sickness and death (2005, 178). Several studies have documented the effect of
Stephen Clift and Grenville Hancox (2010) have summarized research from a variety of sources, as well as conducted their own international study of community-based choirs, using the World Health Organization’s Quality of Life questionnaire (WHO-QOL). The WHO-QOL measures physical health, psychological health, social relationships, and environment, in the context of a person’s culture and value systems, and their personal goals, standards and concerns (WHO 2014). Clift and Hancox’s results, as well as the qualitative and quantitative studies they reviewed, clearly document the health advantages of singing in a group setting. Some of the results show increased positive mood, focused concentration, controlled deep breathing leading to reduced anxiety and stress, improved immune system, social support, and cognitive stimulation (Clift and Hancox 2010). Also addressing issues of social well-being, Australia has an established program called DRUMBEAT (Discovering Relationships Using Music, Beliefs, Emotions, Attitudes and Thought) that is used in elementary schools to increase self-esteem and social competencies of participants. This program seeks to diminish levels of alienation in children by using drumming to explore healthy relationships and connections. The model consists of a ten-week program of hand drumming that “incorporates themes, discussions and drumming analogies relating to self-expression, communication, emotions and feelings, self-worth, problem solving, confidence and teamwork” (Faulkner et al. 2012, 72). The facilitators of the program note that many health interventions are looking at future outcomes but participation in the arts can have a “more immediate or concurrent impact on mental or social wellbeing” (Faulkner et al. 2012, 71).
The fields of musical performance and music education are important to this study, as WARE is both an educational and performance-based experience for students. These two disciplines have also been examining health and well-being for both professionals and students. Music educators David Elliott and Marissa Silverman encourage us to view music as a *praxial* model, that is, one that sees “music as/for social, educational, ethical, spiritual, and healthful ends” (2012, 28). Music is part of our everyday lives, through celebrations, rites of passage, entertainment and so on. Elliott and Silverman highlight the importance of our social relationships and networks, and they emphasize the value of the ethnographic methods of including context and cultural factors in any discussion of music and an individual’s health; they write: “Accepting that music is a socially embedded and embodied praxis commits musicians, researchers, educators, and healers to healthy and healthful musical actions and the ethical deployment of music for health and well-being” (Elliott and Silverman 2012, 35).

Music educator Deborah Pierce writes that recent research in music education is moving the field towards incorporating a more person-centred approach that includes integrating health and wellness into the training of teachers and development of curriculum (2012). She states that professional musicians, like athletes, have always faced physical and psychological problems related to their artistic work, due to intense and often solo training, as well as high levels of competition, which extends to student musicians as well. Pierce cites a study that reports 25% of music students entering college or university have higher ratings of depression and anxiety than their non-music peers (Spahn et al. 2004 in Pierce 2012). Some research has shown that the personalities of those who are drawn to the profession of music are “especially vulnerable to
psychological injuries” (Pierce 2012, 155). Many musicians, Pierce notes, have an “internal focus” that prevents them from seeking help when needed. Pierce highlights two elements in teaching music, challenge and competition, that are both supported by product-oriented methods. While not necessarily negative in and of themselves, they can upset a healthy balance if not supported by other more nurturing methods of teaching, such as focusing on process and individual learning styles. Western societal values champion a focus on intellectual abilities as well as valuing product over process. Consequently, musicians, who may be typically more aligned with intuition and feelings, are “working in a culture that is often in direct opposition to their own values” (Pierce, 2012, 156). Pierce advocates for diversifying a musician’s training, which includes having students explore global traditions in which they can examine the roles of music in terms of audience, performers and the action of music as opposed to the product (2012). This can be very helpful in expanding their understanding of music and their own healthy connection to it. Participatory music ensembles such as WARE can provide such an opportunity for students at the university level, helping to provide a balance conducive to increased health and well-being.

This chapter has explored research in several disciplines, providing a frame of reference for the research I have undertaken with the West African Rhythm Ensemble. Through the lens of the field of medical ethnomusicology, we have seen a convergence of interests and knowledge of the potency of the connection between music and health. In particular, the mental health and well-being of young people is of great concern in our society, and strategies that support better mental health are a priority for many institutions. I believe music has a significant role to play in this undertaking, and I have seen evidence
to support that, both in the research outlined in this chapter and in my own teaching. The importance of relationships has been a recurring theme in many of the areas examined in this chapter; music therapy, psychology, mental health, neuroscience and music education. This theme is of significance to my project as the experience in WARE is primarily about relationships; musical relationships between drummers and between drummers and dancers, and social relationships between those involved, and with the audience. Engaging in a form of participatory music-making, the ensemble is an ideal community to show how music can support our social, mental and physical health. This is of value to the students involved and the community at large.
Chapter 2: Journey of a Thousand Beats

Writing about the mental, social and physical health effects of participation in WARE inevitably means writing about my own experience. Writing in this reflexive manner reveals my personal connection to the subject and the relationship between the elements involved in this project. This chapter presents an account of my experiences as a percussionist, educator, student and performer of Ghanaian music and dance, and how I arrived at my current role as ethnographer. This narrative will give insight into the context surrounding the multiple perspectives addressed in this thesis. This chapter will also present a description of the West African Rhythm Ensemble (WARE) itself, and a typical rehearsal. I will also describe the repertoire that the ensemble engaged with in the fall of 2015, in order to provide a frame of reference for discussion of the music and dance that emerges from themes in the student interviews conducted at the end of term.

I take inspiration from the reflexive writing of several scholars, including Mary Piercey (2012) in her work as a music educator in an Inuit community, and Deborah Wong (2008) in her discussion of performance and performative ethnography in relation to taiko drumming. Piercey explores her own non-indigenous presence in the ethnographic field, including her relationship to Inuit culture and her own Western culture. Perhaps, in undertaking a similar task, these personal accounts of my relationship to Ghanaian music and dance will provide, as Piercey suggests, an understanding of “how my motives goals, habits of mind, and behaviour have shaped my representation of [the culture]” (2012, 151). This style of writing is an outcome of several decades of self-reflection by those in the field of ethnomusicology. In their introduction to Shadows in
the Field: New perspectives for fieldwork in ethnomusicology, Timothy Cooley and Gregory Barz explain: “The power of music resides in its liminality, and this is best understood through engaging in the experimental method imperfectly called “fieldwork”, a process that positions scholars as social actors within the very cultural phenomena they study” (2008, 4).

Prior to carrying out the research for this project, I participated in Ghanaian music and dance as a student, performer and educator for close to thirty years. After immersing myself in the music for so long I am now stepping into the role of scholar to undertake an investigation of some of my observations surrounding health and well-being in relation to this participatory art form. This necessitates a shift in my relationship with my students and indeed with the music itself. This is what Wong refers to as “performative ethnography”. She is a taiko player and researcher and she highlights the strong connection between the two roles. If I insert my specific area of research into her words, I would explain that “I can’t tell you about [Ghanaian drumming and dancing at Carleton University in Ottawa] without telling you about how and why I’m telling you about it, and I can’t reflect on ethnography without doing it” (2008, 78). Wong began her involvement with taiko as an Asian American looking for personal cultural expression, first by being an audience member and then by becoming a performer (2008, 79). Similarly to Wong, I did not engage in Ghanaian drumming for research purposes, rather, I was a percussionist who gravitated towards the compelling rhythms I experienced that were unlike any I had heard or played before. Moving into the role of ethnographer, I move into the space that Wong describes as the overlap between experience and interpretation (2008, 82).
First Encounter

I distinctly remember the first time I heard Ghanaian drums, as it was a confusing, visceral and powerful experience, and in retrospect, it resonates with ethnomusicologist Philip Bohlman’s description of first encounters with world music as “often personal, even intimate experiences, frequently engendering a sudden awareness of local knowledge. That awareness seldom leaves us untouched, rather it transforms us, often deeply” (Bohlman 2002,1). This dramatic shift in musical and personal awareness was certainly my experience. In 1984, as an undergraduate percussion major at the University of Toronto, I began attending the weekly African Drumming class for percussionists, led by our teacher Russell Hartenberger, who is a member of the percussion ensemble Nexus, (nexuspercussion.com) and a student of one of the earliest Ghanaian drummers to teach in North America, Abraham Adzenyah, who was based at Wesleyan University. Our class met in the basement of the Royal Conservatory of Music, where Nexus kept a large practice studio full of Western and non-Western percussion instruments; a magnificent and invaluable resource for those of us who were fortunate enough to study at the university. I loved the sound and feel of the Ghanaian drums but the rhythms were complex and puzzling. With my Western classical percussion background I found it difficult to decipher the individual sounds, let alone remember them from week to week. Over time, I began to notice a physical presence of the rhythms in my body and paid closer attention to that, as it helped me to make sense of the rhythms and organize them into recognizable patterns. This ‘felt-sense’ developed into an awareness of the music that was exciting and transformative, providing a bodily understanding of the music that I still feel today. Bohlman reflects on this physical placement of knowledge when he says:
“It is in the nature of first encounters with world music that our memory of them produces an almost physical return to the encounter itself” (2002, 4).

In addition to developing a sensory experience of the African rhythms, participating in the class gave me a sense of belonging. At that time I was the only female percussionist studying at the Faculty of Music, and as it happened, the only percussionist accepted into my cohort year so I was trying to determine where I fit in both musically and socially. Percussionists from all four undergraduate years participated in this class, which was held on Saturday mornings, and many of us would follow the session with a group lunch on nearby Bloor Street. The participatory and social nature of the Ghanaian drum music lent itself well to a variety of skill levels and experience, making it possible for me to integrate at my own pace. From my experience in those early classes, I realized that I wanted to pursue a deeper understanding of this music: the movements, the songs, and a connection to Ghana. I had enrolled in the Faculty of Music with the intent of becoming a music educator, presumably in Western styles. As I became more proficient in the Ghanaian rhythms and aware of the positive personal connections they generated, I began focusing my efforts on learning more material with a desire to share my skills with others in an educational setting.

The musical competence of those in the percussion department during my studies was exceptional, and I often felt I was struggling to keep up with others’ ability to transcribe the Ghanaian rhythms in their head. Over time, I realized that the most efficient means for me to play the rhythms, as well as to remember them, was to relax into the somatic understanding that I was developing. This relationship to rhythm is something James Burns has written about in detail. His theoretical approach to analyzing
several styles of African music recognizes a multi-sensorial perception where the rhythmic background of clapping, dancing and singing is integrated into the understanding of the instrumental rhythms that occur (Burns 2010). His concept of rhythmic archetypes importantly underlines the whole-body perception of Ghanaian music. Burns describes these archetypes as rhythmic patterns that exist both on the “surface-structural level and the deep-structural level” (2010 n.pag.) and in relation to a “shared rhythmic background”: performers visualize and feel the timing rather than count pulses (Burns 2010). He argues that the “rhythmic archetypes produce a tactile image that becomes embedded into the tactile memory over time, creating both a physical and mental impression of each rhythm” (Burns 2010). I believe that my teaching style has evolved from my early physical connection to the music, as I will reflect on later in this chapter.

My undergraduate studies in the 1980s coincided with the growing global interest in world music (Feld 2000, White 2012). I participated in several world music ensembles at the University of Toronto, coordinated by ethnomusicologist Timothy Rice, and later James Kippen. However, feeling an affinity for the Ghanaian rhythms, I also joined a community-based drum and dance ensemble founded by another Nexus member Bob Becker, which eventually came to be known as Flaming Dono. Initially a group of drummers whose skill base came from many artistic disciplines, dancers were invited to join from local cultural troupes as well as the modern dance community. The new, larger ensemble performed at WOMAD, the world music festival founded by Peter Gabriel and brought to Toronto in 1988 for its first edition outside Britain.
Flaming Dono was part of a large and vibrant emerging world music scene that reflected the changing artistic and immigration patterns in Toronto. It was an exciting time that saw many Africans relocate to the city, providing the growing world music scene with performers and audiences. This reflected Canada’s self-proclaimed identity as a multicultural society while also contributing to the growing pluralistic sensibility (Day 2000). Members of Flaming Dono who had immigrated to Canada, or who had grown up in Canada in the 1970s, as I had, were well aware of the tenets of multiculturalism, such as “strength in diversity”, many of us absorbing them in elementary school. The Ghanaian, Caribbean and Canadian-born members of the group embodied the possibilities of connection and shared experience between people and cultures, alongside some misgivings about our efforts to present Ghanaian music with both African and non-African performers.

Ethnomusicologist Steven Feld writes compellingly of both the celebratory and anxious narratives surrounding world music (2000). He discusses the celebratory nature of world musics, highlighting the wonderful fusion and fluidity of music and people around the world. This response is contrasted with the anxiousness of the capitalist interventions of the music industry, which exploited world music and diluted the authenticity of various styles. One narrative is more hopeful and one is more threatening. Feld says, in fact, they are seamlessly entwined (2000,153). This entanglement was certainly present in Flaming Dono history and has been present throughout my personal career as a Caucasian woman teaching and performing African music. However, at the time, many of us were negotiating these threads on the ground level, person to person, without the perspective that Feld and others would articulate years later.
Through my early connection with this music and the people involved in playing it, I could see the potential for its use in schools and other educational settings. I had a strong conviction that this was something that I wanted to develop, so in 1990, after six years of participation in the art form, I decided to travel to Ghana to study and immerse myself in the culture, and acquire my first set of drums. Ethnomusicologist David Locke facilitated my first introduction to Frederick Kwasi Dunyo (www.dunyo.com), who became my primary Ghanaian teacher, through the lineage of Locke’s own teacher, Godwin Agbeli with whom I studied subsequently. Kwasi Dunyo initiated me into the apprenticeship style of teaching and studying, working on drumming, dancing and singing with me four to six hours a day for four months, and overseeing all other aspects of my stay in Ghana, including learning about local food, culture, language and customs. In 1992 I brought Kwasi Dunyo to Canada through a grant from the Canadian government’s Foreign Affairs department, and after several annual visits, he obtained his Canadian citizenship. He now resides in Toronto, where he teaches at the University of Toronto and York University. That first trip to Ghana was for me, the beginning of a deep and lasting friendship with Kwasi Dunyo, connections to several other Ghanaian teachers and their families and to this powerful music and dance. I have returned more than ten times over the last twenty-five years for further studies, and now facilitate study trips for my students and colleagues. Having my work and intentions supported by Ghanaians, as well as working collaboratively with them have been defining factors in how I navigate the various narratives that Feld speaks of.
Educational practice

My early teaching of Ghanaian music and dance consisted mainly of freelance contracts in schools and community settings, and involved a fair amount of trial and error as I looked for ways to communicate my new knowledge in situations that were quite different than how I had been taught in Ghana. During that time in the early 1990s, I was also pursuing my Master’s degree at the University of Toronto in music education, and for my major research project I produced a video demonstrating my teaching of a Ghanaian piece of repertoire to Canadians. The concept of integrated arts was emerging in the school boards in Toronto at that time and so the format of the Ghanaian pieces which involved drumming, dancing and singing, was a perfect fit. I was hired to work collaboratively with other artists for school residency projects, as well as on my own for West African music and dance workshops, often in some of the areas of Toronto with a higher African immigrant population.

In 1992 I began extensive performance work with choirs, frequently travelling throughout North America and Europe, introducing Ghanaian music and dance to singers of all ages. This work was initially facilitated through an invitation from Dr. Doreen Rao, (www.doreenrao.com) an influential leader in the field of choral music education. Her artistic vision had a major impact on the children’s choir movement at that time, which resulted in a growing interest in exploring and performing African music and movement in settings that traditionally had accommodated Western choral music. I led Ghanaian singing, drumming and dancing events in England’s Canterbury Cathedral and St. Martin’s in the Field, a Roman-style marketplace in France, and in a Utah hockey arena for the World Senior Games, among others. It was in these diverse settings and rather
brief teaching time frames that I honed my teaching skills, distilling what I considered the important elements of the singing, drumming, dancing and spirit of this music, and communicating them to those I was working with.

The slow pace of life during my study visits to Ghana allowed me a gradual and deep learning experience of the drumming, dancing and singing, embedding the knowledge solidly in my body and mind. As a Western educator, I needed to find a way to translate that deep knowledge to students in very different environments. Spending four hours a day one-on-one with a teacher, as I had done for my lessons in Ghana, was obviously not feasible in most Western settings. As such, I developed a system of word phrases to reflect rhythmic patterns and connect dancers and singers to drummers. Ewe-speaking drummers use a system of sounds on drumheads that relate to spoken syllables, and there are many rhythms that translate to specific meanings or phrases. Although I do not speak Ewe and learned almost all of my material through aural transmission of sound only, it seemed to me that using language to communicate these rhythms would be an appropriate, effective and lasting way to share this music and dance. I taught choristers of different ages many of the fairly complex drum parts, and watched their elation at their new skills, transmitting that energy to the dancers with whom they were engaging. It was clear that these performers were achieving “flow” (Csikszentmihalyi 1991). They were developing a set of new skills that provided just enough challenge to keep them fully engaged and joyful. Most of these choral performances were Western-style staged shows, and the performers non-Ghanaians, and as such were not in the original context. However, as David Locke states, “that does not mean that in new contexts, these arts can not again come to life” (2004, 176).
In the performance of “Gahu”, a popular piece with the choirs I was working with, I made creative use of whatever space we were in, surrounding the audience with dancers, and filling the halls, aisles and balconies with call and response singing and drumming patterns. The emotional and physical connection between performers, the positive intent of large-group artistic experience, and the raw energy of inexperienced but passionate and committed drummers was unexpected yet very engaging for those participating and watching. These performances often inspired our audiences to stand up and join us from their seats. It was during this time that I began to see the expansive power of this music and dance, and how it could be transformational for many, particularly for those participating in the actual drumming, dancing and singing, but also for those who were moved to stand up, clap, move their bodies and connect to the experience by exhibiting emotion and expression outside the norm for presentational styles of music. Turino writes “the frame for presentational performance is typically cued by devices like a stage, microphones, and stage lights that clearly distinguish artists and audience” (2008, 52). In these large-scale choral performances, I, and those I was working with, deliberately tried to blur that distinction and to involve the audience as participants, by re-thinking the spaces and seeking out new venues that were more conducive to participatory musics.

I taught the repertoire aurally for many years, resisting requests for documentation in the form of notation or audio/video files from both my students and the larger educational communities in which I worked. I endeavoured to keep the aural element of the teaching intact, since to my mind, this was critical to achieving the participatory aspects of the music and original intent of the experience. Interest in African music was spreading quickly though, and soon others in my field began notating and publishing
Ghanaian pieces in school curriculum method books, including some of my strategies for teaching difficult rhythms. I later reluctantly agreed to arrange and publish a few of the songs for choirs as a means of getting the music to more people than I was working with, and later I developed a written resource for teachers that included drum patterns, descriptive choreography and teaching philosophy (Armstrong 2008). As one might expect, these projects lacked the depth, spirit and energy that is at the core of a participatory tradition.

While these were not highly lucrative ventures, a portion of the earnings from these publications and some student recording projects I produced in subsequent years supported community-identified development projects in the small village of Dagbamete in Ghana where I continued to return for studies, in an effort to somehow create a balance in the exchange of goods. This seeking of balance is something that many musicians, ethnomusicologists and field researchers have grappled with as they negotiate the power dynamics involved in engaging in non-Western musics (Feld 2000, Shelemay 2008, Taylor 2007, White 2012). Many aspects of world culture and knowledge have been produced and packaged for Western consumption. Music, being “particularly mobile and therefore easily commodified” is a quintessential example of globalization (White 2012, 1). Embarking on my world music education career during the exciting but problematic years in the later part of the 20th century has provided me with a wealth of experience both positive and negative in light of the larger global picture. My conviction in the educational and well-being merit of Ghanaian music and dance, not only for people of African descent, but for the population at large has sustained me in my career, along with
the support and friendship offered by Ghanaians I have studied and worked with over the years.

When I moved to Ottawa in 1994 I began making plans to start a local arts group for children and youth, using the non-profit community children’s choir model as a starting point for organizational structure, having spent so much time with those kinds of choirs. In 1995 I founded Baobab Youth Performers, later enlarging to Baobab Tree Drum Dance Community (www.baobabtree.org) with the addition of public classes and an adult ensemble, which I co-directed with my husband Rory Magill, whom I had met in Toronto’s Flaming Dono. Having a stable artistic base allowed for further development of complex pieces, as well as the incorporation of new pieces into our repertoire. It also allowed us to bring in Ghanaian guest artists for workshops and performances. As an educator I was interested in working with several different people to gain multiple perspectives, and to share these with my students. Most often, students of this and other styles of world music study and work with one teacher, in a more traditional apprenticeship model. However, engaging with different teachers works well for Baobab Community since although there is a Ghanaian community in Ottawa, there is no one with the artistic skills necessary for teaching the kind of repertoire I was seeking for the group to learn and perform, and for myself to continue my studies. Bringing in several Ghanaian drum and dance experts from different generations and artistic experiences has allowed us to develop both rural and urban styles, and repertoire from several different ethnic groups, adapting that repertoire to accommodate our classes and groups that range in age from seven through adult. We have also partnered with the local Ghanaian community to present concerts and workshops at community events. Many of the first
generation Ghanaians, like other immigrants to Canada, seek opportunities for their children to engage with the music and dance of their heritage. We have had several successful artistic collaborations, although the attraction of Western culture, such as hockey, basketball and hip-hop draws much of the Ghanaian-Canadian children’s interests. Baobab Community continues to promote Ghanaian culture through our programming in co-operation with members of the Ghanaian community who serve on our Board of Directors, as well as the Ghana High Commission, which is based in Ottawa.

Carleton University West African Rhythm Ensemble

Presenting and representing African music through educational programs is found not only in community settings but also in many post-secondary institutions throughout North America (Dor 2014, Locke 2004, Solís 2004). In his introduction to Performing Ethnomusicology, Ted Solís refers to this kind of educational programming as “academic world music ensembles” (2004, 7), and these may exist to provide contextual resources for an ethnomusicology department, or to serve the goals of the performance and music education departments of an institution. Solís suggests that two types of academic ensembles exist, the “realization ensembles” where participating students continue to develop their existing musical skills on their major instrument, and where the focus is on presentation in the form of concerts; and the “experience ensemble” where students have the opportunity to learn a new set of skills, often based in a cultural context that they are unfamiliar with, and where the performance element is less desirable or culturally significant (2004,7-8). These “experience ensembles” can provide mind-opening and cross-disciplinary opportunities for students majoring in music or other degree programs.
(Solís 2004, 6). The West African Rhythm Ensemble (WARE) certainly fits into Solís’ latter category of “experience ensembles”.

WARE is one of several performance groups available to the students in Carleton University’s Music Department in addition to Chamber Music, Jazz, Fusion, Choir, Pep Band, Roots, Opera and Musical Theatre. I founded the West African Rhythm Ensemble in 2007 after a private donor to the university provided funds to purchase the required instruments from Ghana. For ten years prior to beginning this group, I had been using Ghanaian rhythms and movement as an integral part of teaching rhythmic ear training, in the Applied Rhythm courses that I developed and still teach. WARE is comprised primarily of undergraduate music students, most of whom have never played percussion or danced in this style before attending Carleton University. Participation in WARE or the other ensembles contributes to the overall musical education of students enrolled in the Bachelor of Music degree program, and the ensembles are also open to non-music majors and community members. There are no final grades given in these ensembles, rather credit is determined by either a satisfactory or unsatisfactory mark which reflects regular participation during rehearsals and the end of term concert, as well as other requirements set out by the various ensemble directors. Most of the ensembles require an audition, and students perform on their major instrument. WARE is an un-auditioned group, as I assume that students do not have prior experience with African music, and for the most part this has been the case. This inexperience is typical of many world music ensembles found in post-secondary institutions throughout North America, and can be problematic for achieving a performance level of musicianship, since skill sets and
contextual knowledge must be developed within an institutional framework that often results in high turnover (Solís 2004, 14).

In addition to the dilemma of Feld’s threads of celebration and anxiousness discussed above, Solís outlines three challenges of those engaged with “intercultural and intergenerational” transmission of world music in a university setting: 1) working within the academy; 2) representing culture to students and the public; and 3) pedagogical negotiations in the interest of the first two (Solís 2004, 3). I will address each of these challenges in relation to the West African Rhythm Ensemble to provide a better understanding of the specific setting and factors that contribute to skill development and positive health and well-being for the students involved in WARE. In terms of working within the academy, perhaps WARE is unique among similar ensembles at other institutions, in that many students have been introduced to some of the repertoire and techniques during the above-described Applied Rhythm class, which is a mandatory part of the musicianship component for B.Mus. students at both first and second year levels. Each week for ninety minutes, over two academic years, I work with students to improve their understanding of rhythm through writing and speaking rhythmic dictation using Western classical notation, the Takadimi rhythmic solfège system[^1], listening to musical examples, and through discussions of meter and other concepts. A portion of each class is dedicated to embodying these rhythmic principles through drumming, dancing and singing pieces in the Ghanaian repertoire, primarily from the Ewe and Ga ethnic groups. I also incorporate African children’s game songs that involve cross-body clapping and stepping patterns. These embodiment practices serve to cohere a new group of students at

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[^1]: Takadimi is a rhythm system with roots in classical Indian music. The system was developed in the mid-1990s by faculty at Ithaca College in Ithaca, New York, and resulted in a teaching text entitled The Rhythm Book by Richard Hoffman. www.takadimi.net
the beginning of the year by establishing a level playing field, requiring eye contact, and introducing the rhythmically disorienting effects that African music can have on primarily Western-trained musicians.

Many participants in WARE join the ensemble after their introduction to Ghanaian music in the required Applied Rhythm class, as they want to experience more of the music, movement and culture since that is not the sole function of that class. Others, who may feel challenged by rhythm, realize that joining WARE would give them an additional two hours a week of embodied rhythmic practice. So in this way, Carleton Music’s course structure supports the skill development of a world music ensemble. Like the other ensembles, WARE is required to perform an end of term concert, but the focus is on student achievement and I have never felt any of the performance pressure from faculty or administration that Solís makes reference to in larger institutions (2004, 6).

With regards to high turnover, my own approach in WARE is to welcome participants for as many terms as they like, and from disciplines outside of music. Each year as many as half the group members participate without getting academic credit; they might have already fulfilled their ensemble requirements, or perhaps they are from another department at Carleton, or based in the Ottawa community. In addition, students from all four years of the degree program participate together which allows for the natural mentoring and knowledge transfer that is so important in the context of this kind of drum and dance ensemble.

The second, and possibly most contentious, challenge outlined by Solís for university-based world music ensembles is that of representing culture to students and the public in an educational setting. Taking a tradition out of its original context and
communicating its fundamental qualities for the purposes of Western education and presentation can be challenging for those from both within and outside the culture. Many of these world music ensembles, like WARE, reflect participatory practices that may be at odds with university music department goals. Combine that with issues surrounding race, ethnicity, appropriation and hiring practices at institutions, and the concept of offering world music ensembles becomes a complex endeavour for universities.

Ethnomusicologist David Locke has been navigating this challenge for many years in his position of music professor at Tufts University, where he specializes in the music of Africa, primarily the Ewe and Dagbamba traditions of Ghana. Locke has been a student, teacher, and presenter of this music and dance for several decades, and he has served as a valuable resource for facilitating links between people and programs. Students and Africanists alike have benefitted from his steadfast commitment to the traditions and to his teachers. In addition to helping me connect to my first teacher in Ghana, Locke and I have had intermittent but entirely useful discussions and interactions over the years around the concepts of appropriation and presentation, pertinent subjects to both of us as members of a fairly large group of non-Ghanaians immersed in Ghanaian musical traditions. In his chapter in *Performing Ethnomusicology*, Locke states:

> World music ensembles inexorably are affected by the world’s imperial, colonial past. This is the condition of all ethnomusicological action, but the very nature of performance calls it forcefully into debate. Music studies, unlike less performative modes of cross-cultural inquiry, encourage non-dominant relationships (2004, 181).

In an educational setting, the study of culture through performance offers opportunities for many individuals to make contributions, demonstrating the non-dominant relationships Locke is referring to. In WARE, these kinds of relationships have included
students participating who were born in Africa or to African parents, who bring an energy, style and form to the group that is invaluable, and something that I cannot convey. Percussion or voice majors, or those with a dance background contribute specific musical skills that enhance the group’s performance. When I invite my own Ghanaian teachers to be guest artists with the group, I am seen in my student role. With my skills as an educator, I can break down parts and effectively communicate the songs, rhythms, movements and structure of the pieces in a way that makes it possible to put together presentable arrangements of pieces without the benefit of months or years of study that would occur in Ghana. Students who may have challenges academically often excel in the bodily learning that takes place in WARE and this balances out the usual academic hierarchy that is reflected through a system that values marks only. Our collective inquiry draws information and expertise from many sources, propelling us to a deeper understanding of people, culture and our own biases. I occasionally reference these varied contributions during rehearsals, however some of it is a non-verbal and gradual enculturation of concepts and elements that serve to communicate culture in multifaceted pathways.

The cooperative structure of the music also encourages non-dominant relationships, by means of interaction between several artistic elements. The lead drum calls often control the form of the piece, yet those rhythms are in direct dialogue with dancers and drummers. Musical elements are on an equal footing with each other in the scope of a piece. Locke makes no apology for his life’s work, saying he feels “comfortable in his role,” explaining that when working in America he often feels like a “cultural insider”, while on field trips to Ghana he feels “decidedly like an outsider”
(2004, 182). Furthermore, he suggests that watching performances by “born-in-the-tradition” musicians can reinforce cultural stereotypes, whereas seeing a performance by outsiders of the tradition may be uncomfortable for an audience, but allows for opportunities to examine musical elements separate from who it is performing them (Locke 2004, 182).

Like Locke, I am fairly comfortable in my educational work in Ottawa. I do not confront the same kind of openly racialized society that Locke and others face in the United States, or even that of Toronto, my hometown. I consider myself an educator first and foremost, and the Ghanaian repertoire I have engaged with for more than thirty years is the medium through which my passion for music is expressed most fully. I am not entirely sure why that is; my own Scottish-Irish heritage might have sent me in another musical direction, but the powerful and visceral connection I have to the music and culture of Ghana feels deeply embedded. I think of myself as a facilitator, connecting people to the music and the culture-bearers of the tradition. Support and appreciation from the Ghanaian community both in Ghana and in Ottawa have contributed considerably to my level of comfort with my work. However, I am fully aware of the complexity of issues that are negotiated on a regular basis when my groups are asked to perform at the Ghana Association events in our community, or when the Ghana High Commissioner to Canada attends our shows. We are all striving in some way to acknowledge and move beyond the legacy and structures of a colonial past.

The West African Rhythm Ensemble at Carleton generally reflects the ethnic composition of the music department, which is primarily Caucasian with some visible minorities. Although there are many African students at Carleton University, there are
few in the music department, which is reflected in the make-up of WARE. As an ensemble with an educational mandate, I accept that we are constantly negotiating several goals and sensibilities, and this is where my pedagogy becomes very important. As Solís observes:

> In no sphere of ethnomusicological academia do we enter this contested space more unequivocally and richly than through the world of the ensemble, with its formidable diversity of cultural relationships: the director and each of the ensemble members, each of the members to every other, and one and all to the represented cultural tradition. (2004,2)

Pedagogy, Solís’s final consideration/challenge for groups such as WARE, is the means by which we negotiate the transmission of culture in the academy, specifically a post-secondary institution. Certain characteristics of the Ghanaian repertoire stand out to me as the essence of the music and dance, and these have become integral to my teaching methods: the aural/oral transmission of the songs, rhythms and choreography; the cyclical form of the music; the abundance of call and response patterns; the rhythmic density; and the social and emotional engagement between performers. My teaching philosophy involves both the transfer of knowledge and the development of leadership skills. For this reason, I expect my students to attain a basic level of skill in all aspects of the ensemble: singing, dancing, and drumming. I also provide opportunities for them to assume leadership and mentoring roles, in both artistic and non-artistic aspects of the ensemble. It is important to me that they express themselves as individuals, as well as members of a larger community. This plurality of individual/community is one of the most significant and meaningful aspects of the Ghanaian culture that I have observed over the years, and it resonates with my own educational thinking and practices.
I consider my teaching to be successful when I can disappear into the ensemble and have students lead in both rehearsal and performance settings. I also aim to deflect any ideas of hierarchy within the parts, as it is really the sum total that creates the collaborative experience we are striving for. This can be difficult, since most students in WARE arrive with backgrounds in Western styles of music, which are often based on competitive and hierarchical models. I clearly articulate my expectation that they will move from instrument to instrument and role to role during their time in WARE, and that the focus is on the collective creative output of the ensemble as a whole. This knowledge and awareness is supported by the blend of ages and experience within the group, since members can see themselves on a larger continuum of competence. Everyone has a role to play in the group, bringing different but equally valuable strengths to our efforts. I also encourage the students to communicate emotions and expression through the music when we have rehearsals and performances. These are the musical and social elements that are important to my sensibility in this genre, and which I try to facilitate in my role as an educator. I feel that this kind of approach, which values personal connection and contribution, can promote health and wellness among the students. Additionally, cultural knowledge and respect for the context and integrity of this music and dance informs my teaching process, and as often as possible I bring in guest artists to work with the ensemble, conveying that which only a person born into the culture can. In terms of cultural props, Locke expresses his ambivalence towards using costumes\(^3\) (2004, 177-178), which I share. As he states, many of our teachers of these traditions insist on

\(^3\) The use of the term “costume”, both by Locke and myself, reflects its use by Ghanaian teachers and performers to denote specific outfits worn by those engaged in cultural or staged presentations, both in Ghana and North America. This is considered different from the traditional dress worn by individuals in daily life or at community drumming events, although occasionally traditional dress can become a “costume” when the context is performative. (David Locke, email discussion with the author, July 8, 2016)
traditional costumes for performance, which in my experience can be impractical and unaffordable as well as more of an affront to the culture, when non-Africans try for the same “look”. Locke feels the costumes can trigger a negative response and take away from the musical efforts of the students (2004, 178). For the West African Rhythm Ensemble, we have compromised by donning WARE t-shirts, and either a wrap for females or baggy shorts for males, sewn from vibrantly patterned cloth from Ghana. The costumes have worked well for many years, providing a sense of belonging when the members wear their t-shirts outside of ensemble activities, and when they wear the Ghanaian patterns for performance, which strengthens the collective mood allowing them to relax into a group performance. Occasionally I have had students who have been more comfortable wearing the costume intended for the opposite sex, which I have supported. Much of the repertoire in Ghana is strongly gendered, and since we often have uneven numbers of males and females, there is always an element of gender role-playing within the ensemble, including the clothing. This is becoming more significant as our society is increasingly addressing the needs of those who are transgender and gender neutral. More recently our pieces in WARE are being performed with blurred gender distinctions, and I am currently exploring ideas for more appropriate costuming that might invoke and respect the tradition while acknowledging a more gender-neutral bias and North American educational context.

Traditions around WARE are being negotiated on an ongoing basis, as a living culture. These negotiations, as well as pedagogy and cultural learning take time to develop, which is not always possible in the framework of an institution. The initial period of intense learning when students first join the ensemble often opens into a rich
musical, personal and physical growth, which compels many of them to spend several
terms of their university time in WARE. This desire to participate over multiple years
suggests the personal importance of the experience in their lives. My pedagogical
practices, combined with the multiple layers of learning opportunities in such an
ensemble encourage the members to stay for reasons that include artistic skill-building,
personal development, leadership training and an environment that fosters both
inclusivity and a sense of belonging. Several students have informally discussed with me
the health benefits of their participation, and I have observed it myself over many years in
WARE and other settings where I am involved with learning, teaching and performing
Ghanaian drum and dance. It is these experiences that have led me to formally pursue the
links between drumming and health in this current research project.

Fall 2015 Rehearsals

The Carleton University West African Rhythm Ensemble rehearses weekly for
two hours on Mondays from noon to 2 p.m., in the Patrick Cardy Studio, a large multi-
purpose room in the music department. In the fall 2015 term, membership was twenty-
eight participants: sixteen women, eleven men and one person who identifies as gender
queer. There were sixteen members registered for an ensemble credit for their degree
requirements and twelve who were not. Fall 2015 saw nine new members join WARE,
two of whom had participated in a similar kind of ensemble during their high school
years in the teen community group that I direct. We had ten rehearsals during the fall,
which culminated in an end-of-term concert in Kailash Mital Theatre. Weekly rehearsals
involved skill development in hand and stick drumming, dancing and singing through the
study of the pieces “Kpanlogo”, “Gahu” and “Tokwoe” which originate from the Ga and Ewe speaking peoples of Ghana, West Africa. The repertoire will be explained in more detail further on in this chapter.

A typical rehearsal begins with set-up. The room is empty for the half hour prior to the rehearsal and I usually leave a note on the blackboard after my morning teaching, listing the pieces we will be covering in rehearsal. A few of the students arrive early and move chairs, put away music stands, set up drums and generally prepare the space for Ghanaian music and dance. This includes sweeping the floor, since we dance in bare feet. The constitution of the “set-up crew” and their early arrival has evolved organically over the course of the group’s eight-year history, seemingly without any formal discussion. One or two new members get involved each year, as others leave the ensemble. Set-up has become a very efficient process that I have virtually nothing to do with. My impression is that there seems to be a personal pride among some of the students to be able to demonstrate their knowledge of how to set up specific drums and formations for our pieces and have it ready for when the rest of the group arrives. It is also a time when conversations happen between the new and more experienced players. I mention this preparation procedure in detail, since I believe it is indicative of the collective purpose that this participatory music and dance fosters, which extends to situations outside of rehearsals and concerts amongst the group members and others who they interact with. Many of the students reflected on this in the research findings in Chapter 4.

I always begin rehearsals with drumming, dancing, or singing, not talking. Often I will use a Ghanaian game song, involving clapping patterns and cross-body movements, a Zulu step dance/song, or other collective activity that encourages social cohesion and
necessitates total focus and presence. If there are announcements to make or discussions to be had, I insert them between pieces, to give those who are dancing a rest. The intended focus is on the music itself, and students’ experience and enjoyment of that music “in the moment”. We generally play and dance through a complete piece, then take apart certain sections to work on as needed. Since most students coming into the Carleton Music Department have little to no background in Ghanaian drumming and dancing, it is also necessary to develop genre-specific techniques and skills. Since everyone in WARE is expected to participate in all performance aspects of the ensemble – drumming, dancing and singing, regardless of instrument major – I will often have everyone sit at hand drums or stick drums and practice parts together, or have us all work on a few elements of choreography for one of the pieces, even if that is not everyone’s role in that piece. Singing is also a full group activity. The music and dance is so entwined in this repertoire that knowledge of drumming helps dancers and vice versa. Through time spent in rehearsal, and mentoring from other students, participants develop the skills necessary to carry out the choreographies. In fact, many of them surprise themselves with their enjoyment of moving their bodies in time with live drumming, and request to dance in more pieces.

As previously mentioned, one of our pieces for the fall term was “Kpanlogo”, a Ga hand drumming piece that showcases styles of dancing that reflect movements found in daily life, as well as some that are social in nature, and similar to early hip hop styles. WARE performs “Kpanlogo” in a presentational style, physically orientated towards the audience, typical of staged performances often seen in the cities in Ghana or presented by touring cultural troupes. Our arrangement begins with the singing of several songs
accompanied by an interlocking *gankogui* (double-headed iron bell) pattern, a small iron thumb bell called *ferikyiwa* that plays offbeats, and a hand-clapping and stepping cycle from the dancers. After an oral cue, a long row of hand drummers begins layering three or four patterns, the lead drummer among them giving rhythmic cues, as well as two or three players adding additional parts on frame drums called *tamelin*. Various sizes of *axatse* (gourd rattle) contribute a rhythmically dense galloping pattern. (Figure 2)

![Figure 2: “Kpanlogo” instruments: back l-r: Kpanlogo hand drums; front l-r gankogui, ferikyiwa, tamelin, large axatse](image)

Any instrumentalists who are not seated at a drum are moving to a simple four-beat foot pattern while playing their smaller instruments, so there is a lot of communal, physical groove happening. After a number of fixed choreographed movements facing the audience, dancers step back, keeping the basic clapping and stepping pattern going, and encourage each other to come forward with solos, duets or trio demonstrations. In the Ghanaian tradition, this is very free-style and encourages some of the more experienced members to showcase their “stuff”. Members of WARE often find this section of
“Kpanlogo” difficult; they might enjoy being centre stage for a few moments, but do not want to go in without a plan. We work hard in rehearsals to develop the freedom to express ourselves “in the moment” in this section, not knowing what is coming next.

Another of our other major pieces for the fall term was “Tokwoe”, a stick-drumming piece of the Ewe, danced in a combination of participatory circle formation and presentational style lines. The *gankogui* pattern is a combination of straight and syncopated sections, and the *axatse* part, which although not difficult to play, requires a lot of energy and “showmanship” to encourage a high-energy performance from the rest of the group. We often have a long line of players for this part to make it more fun. The support drumming parts are played on drums built in the style of wooden barrels, with antelope skin heads and ranging in size from larger to smaller: *sogo*, *kidi*, and *kagan*, and led by the lead drummer on the tall *atsimevu*. (Figure 3)

*Figure 3*: “Tokwoe” instruments: back *atsimevu*; middle l-r: *kagan*, *kidi*, *sogo*; front l-r *axatse*, *gankogui*
The drum parts are extremely busy and the tempo is fast, combining open (bounced) and closed (muted) sticking patterns, and it is important for the drummers not to slow the tempo down for the rest of the performers. With only one trained percussionist in the group this year, it was challenging for members to physically learn these parts. For weeks we practiced with many students on drums, changing instruments, eventually finding where individuals fit most effectively for a strong performance. The whole group participates in several call and response songs in the Ewe language, led by various ensemble members throughout the duration of the piece, which in our current arrangement is typically ten to fifteen minutes long.

The third piece studied in the fall 2015 term, “Gahu”, is a foundational piece in our repertoire, embodying many of the musical features found in this style of music and dance. “Gahu” is a recreational piece of the Ewe of south-eastern Ghana. A rich texture of stick drumming, dancing and singing, “Gahu” developed among the Ewes in the 1950s, and, according to drummer Kobla Ladzekpo, it “was brought to Ghana by Yoruba speakers from Benin and Nigeria as a form of satirical commentary on modernization in Africa” (as quoted in Locke 1987, 5). “Gahu” is energetic and playful, and the instruments for this piece, similar to “Tokwoe”, consist of gankogui and axatse, as well as the three support drums, sogo, idi, and kagan. These five supporting parts form a dense fabric, over which the lead drummer plays on the large gboba drum, occasionally calling variations to which the sogo and idi respond. (Figure 4)

The dancers form a circle around the drums, and generally travel as a unit, responding to calls from the lead drum with various movements, including segments of intense arm pumping while the upper body is parallel to the floor, partner movements
which involve non-verbal greetings as dancers make their way around the circle in a weave pattern, and short cross-stepping segments where the whole circle contracts and expands as a unit responding to drum calls.

In Ghana, a village-style “Gahu” may be fairly simple in terms of the rhythmic parts and choreography, whereas cultural troupes in schools and urban centres have more variation and complexity to their arrangements. WARE’s arrangements fall into the latter category for the most part. Similar to our other repertoire, in our performance of “Gahu” a number of songs are sung throughout the length of the twenty to thirty minute piece, led by various members in call-and-response style, most often in the Ewe language, with some Yoruba lyrics still present from “Gahu’s” origins. Our style of “Gahu” is quite participatory, both in the way we set up drummers in the middle of the dance circle, allowing for maximum interaction between performers, and in the way we learn the piece together. There is much emphasis on mirroring one another, since that is the way both

Figure 4: “Gahu” instruments: Back l-r: gboba, kagan, kidi, sogo Front l-r axatse, gankogui

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drummers and dancers familiarize themselves with parts and sections. In fact, at first “Gahu” can be very confusing, and as Locke observes, this can be an exhilarating part of the learning process: “A beginner’s experience of bafflement, when the music feels compelling but eludes rational comprehension, is precious” (2004, 184). Both “Kpanlogo” and “Tokwoe” embody participatory musical elements but are closer to a presentational style in the way that we stage them. “Gahu” has a much more fluid and shifting structure and formation, which allows for less prepared precision and encourages more flow during the event.

With a mix of new and returning students in the fall 2015 term, I took advantage of the mentoring that naturally happens in WARE. In years where there are many new participants, my teaching is more hands-on; in contrast, if some of the students have prior experience in the group, I have them lead some aspects of rehearsals. For the fall 2015 term, we had a few returning students. I often called upon them to explain or model a rhythm or choreography. However, I also took the opportunity to have new students demonstrate a skill for the group they were executing well. These cycles of artistic and personal regeneration in WARE are supported by the participatory nature of the music and dance. Attendance in WARE is important for the collective energy of the group (as it is in most musical ensembles) and when people miss rehearsal, others often step in to cover parts that are needed. This serves the group positively, by encouraging social accountability as well as artistic flexibility, a skill that is definitely required as these students move into professional careers in the arts. During the course of our ten rehearsals, as well as in other terms, I have observed that as we move closer to the end-of-term performances, and as new members become more integrated into the group, we
are rarely missing performers from rehearsals, even with so many members participating in the ensemble as an extra-curricular activity beyond the requirements of their degree. I feel this reflects the individual engagement and shared responsibility that develops over time. Rehearsals generally conclude with members stretching, drinking water, and chatting while putting away drums, as well as a reversal of the room set-up tasks, including filling the humidifier to take care of the drums for the week.

In this chapter I presented a contextual frame of reference for understanding the research project undertaken with WARE. I described my first encounter with Ghanaian drum and dance music, and the path I took to developing the musical and educational practice that eventually led to the formation of the West African Rhythm Ensemble at Carleton University. I also provided a description of a typical rehearsal, as well as information about the music and dance that WARE engaged with in the fall of 2015, prior to the data collection. These contextual details serve to document the musical activity in WARE and to set the stage for the reader to better interpret the research I undertook with the ensemble.
Chapter 3: Meaningful Synchronicity

The many factors that contribute to the dynamic *habitus* that is WARE are held together by the propulsive, repetitive patterns of the drumming music, singing and dance steps. This repertoire provides a source of exciting and complex interior processes for those participating. In the introduction, I outlined concepts of musicking, participatory music making, and entrainment as foundational to this thesis. In this chapter I will connect these themes to the Ghanaian music and dance repertoire that the West African Rhythm Ensemble engaged with in the academic term during the fall of 2015, as described in the previous chapter. I discuss how the drumming, singing and dancing embodies principles of musicking, and how the musical and personal relationships found within the West African Rhythm Ensemble play a crucial role in creating social synchrony. Next, I examine three performance components of Turino’s framework for participatory music making: musical features; roles; and values; and the connection each has to Ghanaian music and dance, and to the pieces that WARE was learning and performing. These components of participatory performance are important to our understanding of how Ghanaian music and dance contributes to well-being for members in WARE. The style of repertoire in the ensemble inspires and supports participation and contributes to social cohesion, which have both been shown to increase health and wellness. (Clayton et al. 2004, Stige 2006) I also discuss the concepts of entrainment and participatory discrepancies as they are found in the Ghanaian repertoire and how they are a central component of positive emotional connection amongst students in WARE. All of these ideas, when examined together, provide connections to health and well-being that are particularly relevant in WARE.
Musicking

Christopher Small’s concept of musicking (1998) invites us to consider music as an action not an object. He replaces the noun, music, with the verb, musicking. His concept takes into account a multitude of relational elements that contribute to the action of making music. Small’s definition of musicking “is to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or practicing, by providing material for performance (what is called composing), or by dancing” (1998, 9, italics original). Small highlights the importance of relationships in music-making, writing that “if we widen the circle of our attention to take in the entire set of relationships that constitute a performance, we shall see that music’s primary meanings are not individual at all but social” (1998, 8). These relationships could include the performers, the audience, the relationship the performers have with the director or conductor, the repertoire being played, and the space in which the musical activity takes place. In the case of WARE, it might also include the performers’ connection to Ghanaian culture (through courses or personal experience), any visiting guest artists, whether they know anyone in the audience, how the lighting and sound is contributing to the performance and so on.

The relationships occurring between members of WARE while drumming and dancing are especially important to the meaning of the music-making. The nature of the music requires performers to focus on what is happening in the moment; they are actively listening for drum cues and song calls so that they may respond appropriately, and they are navigating the physical space in the choreography, while continuously engaging with each other through facial expression and other bodily gestures. This focused
concentration allows them to relax and not to concern themselves unduly with the end product, or worry about what they might look like to an audience. Instead, physicality and connection to others becomes primary. As an example, the formation for “Gahu” places dancers in a large circle, surrounding the drummers who are closely seated in the middle. Dancers follow the performer in front of them, and lead the one behind them, while responding to rhythms and sounds from the middle of the circle, where the rhythmic cues are originating. There is such a large amount of musical information being communicated at one time that both drummers and dancers have little time to consider anything outside of their immediate attention. Freedom from overthinking aspects of their performance is empowering for many of the group members, and this empowerment comes, in part, from the relationship performers have with one another, as we shall see in the research findings in the next chapter. Emphasis on relationship is an increasingly important theme in therapeutic fields, as positive impacts on health and wellness have been shown when the focus moves from the individual participation of the client to include interaction between the client and the therapist and in some cases a larger community (Stige 2006, Madsen 2007). This kind of collaborative therapeutic experience and its significance for WARE will be discussed in Chapter 5.

In addition to relationships, Small highlights the importance of time and space. He asks, “what does it mean when this performance (of this work) takes place at this time, in this place, with these participants?” (1998,10). For those participating in “Gahu”, “Kpanlogo” or “Tokwoe” (as well as other pieces in the ensemble’s repertoire), the experience is different every time, due to musical factors such tempo, pitches of the drums and gankogui, choice of variations, choreographic styles and songs sung, as well
as non-musical factors such as the composition of the group, the setting, the emotional and physical engagement of the participants, and the overall energy generated by the event. For this reason, repertoire can be repeated many times and still produce pleasure for the participants. I will discuss the importance of repetition to positive emotion further on in this chapter. The musical differences outlined above, and the emotional connections generated in each performance contribute to this music and dance being such an engaging and meaningful experience for those involved.

Participatory Music

Through its integrated and interactive nature, the music and dance repertoire of WARE features performance practices that resonate with Turino’s notion of participatory musics (2008). Four of Turino’s characteristics of participatory music-making are especially relevant to my discussion of WARE: 1) form and repetition; 2) rhythmic and social synchrony; 3) musical texture and density; and 4) virtuosity and soloing. First, the form, or structure, of participatory music is usually open and is shaped according to contributions from the individuals participating; this is the case with traditional Ghanaian music and dance. The form is often comprised of short sections containing repeating cyclical patterns, and the constancy of these sections provides security for the performers. Although repetition may seem boring to Western audiences and not transfer well to presentational settings, in participatory cultures, such as traditional Ghanaian drum and dance, this kind of repetition is valued and intensifies the experience. In fact the repetition allows performers to align with each other and to stay there, which contributes to social synchrony, “providing feelings of social comfort, belonging and identity”
The musical events within these pieces are not fully pre-planned, and embody many in-the-moment decisions.

In his discussion of participatory musics, Turino also highlights the common feature of rhythmic repetition and social synchrony, which includes mirroring in gesture, sound and body language. Mirroring occurs in both dance and music and provides a level of comfort for the participants; also created is a feeling of social synchrony – a tacit identification between people that makes them feel connected and successful in their artistic endeavour. These musical features become signposts and markers for the participants since the music is not scripted, and they support participants in their sense of being an insider to the music, and their feelings of belonging (2008, 44).

In his work Turino also observes certain shared musical elements that are found in participatory musics throughout the world such as musical texture, timbre, tuning, and density. Elements such as a dense texture, overlapping parts, wider tuning, lack of clarity, and buzzing sounds on the instruments all provide a cloaking function, which inspire participation without too much worry that an individual will be singled out (2008, 46). A participant with less experience can ease into a musical role and contribute to the fabric of the larger effort, while at the same time learning and gaining experience. This is also true for individuals who may not sing exactly in tune, or have very precise rhythmic ability. There is a place for them in this kind of participatory experience, since musical skill is only one factor among many, contributing to a positive and successful event.

Although one could easily have the impression that music in participatory cultures does not allow for exceptional talents to be seen and heard, this is not the case. Virtuosity is certainly present and valued; however, it is usually situated within the framework of
the larger experience, otherwise it would discourage participation among those who are not at the skill level of those who are soloing (2008, 47). As an example, brief soloing and virtuosity take the form of call-and-response (between a leader and the group) that allows for an individual to shine while in musical conversation with others. This strategy also appears in dance forms, when one dancer moves to the centre of a dance circle for a brief time before the next soloist; this sequential (and sometimes simultaneous) soloing is common.

If we compare the participatory features outlined by Turino to the repertoire that WARE engaged with in the fall of 2015, we see that Ghanaian music and dance embodies many of them. For example, the musical form of “Gahu” is open, led by the large gboba drum and framed by the cyclical gankogui pattern. The basic repeating patterns are always returned to after a variation is called to the drummer and dancers. Variations are not always called in the same order, contributing to an open form. WARE’s arrangements of “Kpanlogo” and “Tokwoe” are also led by a lead drummer and have dominant gankogui patterns, and although the timing and spacing of variations is flexible, their musical forms are a bit more structured than “Gahu” in terms of the order of events. For instance, the drum call in “Kpanlogo” that changes the dancers’ moves is always the same, so the group has rehearsed a certain order of choreographed movements. However, if a particular move is going well, or if the lead drummer is feeling a pleasing energy, he/she will prolong the length of the variation before calling the next one.

Turino’s discussion of texture also applies to WARE’s repertoire. The textures in “Tokwoe”, “Gahu” and “Kpanlogo” are dense, with several overlapping and interlocking patterns on the stick drums sogo, kidi and kagan in “Tokwoe” and “Gahu”, and on the
“Kpanlogo” hand drums. The *gankogui* provides a continuous cycle, and the *axatse* provides a buzzing, rhythmic background. In “Kpanlogo” there is the addition of multiple *gankogui* patterns happening simultaneously, which creates a melodic shape on top of the hand drum sounds. Many people, when hearing this kind of music for the first time are unable to discern individual parts, as the texture is so dense. This allows for beginners to ease into a musical part without drawing attention to themselves.

Similar to other features of participatory musics discussed by Turino, there are many examples of gestural mirroring in WARE’s repertoire: among drummers, among dancers, and between drummers and dancers. Each of the three pieces has a distinct musical structure and choreography, yet they all have sections where mirroring takes place, whether it is dancers who face each other for various movements or drummers whose patterns directly mirror the dancers’ movements. In “Gahu”, one of the variations has each of the dancers facing a partner and moving in opposite directions using a three-step pattern (Figure 5).

*Figure 5: “Gahu” dancers engaging in mirroring moves*
At the end of the three steps, the outward hand is raised, which corresponds with a break in the corresponding drum response. When the dancers then move in the opposite direction, they face each other on the way to the other side, mirroring one another’s moves, and again raising their outward hand to fill the space left by the drum response. Since I teach the parts orally, mirroring and other non-verbal signals become important tools for learning, contributing to the felt sense of inclusion and social synchrony that Turino speaks of. More discussion of gestural mirroring and its connection to entrainment will be included later in this chapter.

Roles Within Participatory Music

In participatory musics “everyone can and should participate in the sounds and motion of the performance” (Turino 2008, 29). In other words, there is no distinction between performers and audience, and everyone is welcome to join in, regardless of skill level and experience. In order for a performance to be effective and successful, there must be a range of abilities and investments in the musical experience. This could include highly skilled players at the centre of the action, as well as those whose participation may be clapping from the sidelines. Turino clearly describes the difference between what is commonly understood as participatory music in Western culture, and that of cultures where it is the primary mode of musical activity:

There is a common idea in the United States that participatory music must be uniformly simple so that everyone can join in, as for example, with the singing of campfire songs. In places where participatory music making is the mainstay this is not the case. If there were only simple roles, people who are deeply engaged with music and dance would likely become bored and not want to participate. If everyone is to be attracted, a participatory tradition will have a variety of roles that differ in difficulty and degrees of specialization required (2008, 30 emphasis mine).
In their original setting, several Ghanaian styles of music and dance support multiple levels of skill and experience. The three pieces we are discussing for this project are no exception, and the membership in WARE illustrates this. Participants for the fall 2015 academic term encompassed a range of ages, as well those with prior experience in music and those without. There are varying levels of rhythmic skills, comfort with movement, and experience with the style of music. This diversity allows for everyone to be challenged artistically to some degree, and provides opportunities to mentor and be mentored during rehearsals and performances in the form of learning and teaching individual parts, helping with group singing, remembering movements and generating positive energy based on past experiences.

In addition to the range of abilities within the ensemble, the group can work with even more experienced players, including the occasional professional guest artist, as we did at the end of the fall 2015 academic term for our public performance. Our guest, Ghanaian drummer and dancer Nani Agbeli (www.naniagbeli.com) led two of our pieces, “Gahu” and “Tokwoe” and his exceptional drum playing was highlighted within the group performance, both when he was leading variations and also soloing on top of the texture of rhythm and dance provided by the students. In our third piece “Kpanlogo”, some of the students took turns engaging in solo and duet movements at the end of the formal choreography, while the rest of the ensemble supported those efforts both musically and socially by surrounding the individuals and clapping and pulsing with movement.

If the main goal in participatory musics is to have everyone present participating, one aspect of the WARE program appears to fall distinctly outside of this model.
Carleton University’s music ensembles (like those at other educational institutions) are geared towards an end of term concert. Our rehearsals may be inclusive, involving everyone on an equal footing and embodying a shared community sensibility, with a variety of skill levels being engaged at once, but our final concerts take place on a formal stage with lighting in a large auditorium with hundreds of seats for paying audience members. We aim to project the inclusive aspect of our music and dance in the way we present and interact with each other in the performance, but this staged format is naturally closer to presentational performance styles. We make an effort to get around this by occasionally giving an end of term performance in a smaller classroom space with slides of Ghana projected on the back screen and our audience closer to us. Sometimes we invite the audience on stage for our last piece to join us in a freestyle dance. As Turino writes:

> When rank beginners, people with some limited skill, intermediates, and experts all perform together… people at each level can realistically aspire to and practically follow the example of people at the next level above them. In participatory contexts, the full range of the learning curve is audibly and visually present and provides reachable goals for people at all skill levels (2008, 31).

I would extend Turino’s analysis and suggest that audience members in a presentational setting are also part of that continuum; they have just not begun playing or dancing yet. I have observed over many years that audiences watching these kinds of performances may be engaged in ways that are participatory even if we cannot see it. This has to do with people being able to identify with those performing around them, and seeing themselves as potentially achieving similar goals. It is not uncommon for me to be approached by audience members at the end of performance, asking how they can become involved. I
think this is because they have “seen” themselves in someone who is onstage, and participation suddenly seems possible. Many people have joined my ensembles as a result of seeing their first concert and wanting to become involved immediately.

Values in Participatory Performance Practices

According to Turino’s model of participatory music making, one of the key differences between participatory and presentational styles of music is that participatory music inspires others to join in a performance; he writes “participatory values are distinctive in that the success of a performance is more importantly judged by the degree and intensity of participation than by some abstracted assessment of the musical sound quality” (2008, 33 emphasis mine). Members in the ensemble have a responsibility to participate in a way that includes everyone; if someone is not engaged, the value of the whole performance decreases for those involved. This underlying belief is certainly at play in WARE. Connection between performers requires engagement, whether the skill level of an individual is on par with the rest of the group or not. Making eye contact with other performers, smiling, laughing and generally being present in the moment of the music and dance contributes positively to the overall experience. As Turino notes, “this kind of concentration on the other participants is one reason that participatory music-dance is such a strong force for social bonding. It also leads to diminished self-consciousness, because (ideally) everyone present is similarly engaged” (2008, 29). I emphasize the importance of emotional engagement, facial expression and acknowledging interpersonal connections during rehearsals. I do not explicitly discuss the responsibility of senior members to reach out and engage newer members, yet the students have experienced the powerful effect their efforts can have in this regard. When
an individual is connecting through non-verbal communication with others in the group, it contributes to a more cohesive performance. When first joining the group, students are enculturated into this kind of behaviour by those more experienced, and over time it becomes instinctual for them.

Allowing personal expression to contribute to the larger artistic output is one of the most challenging aspects of performing Ghanaian music and dance; most of the members of WARE are music students who have been trained in styles of music that are presentational and which discourage physical or bodily demonstrations of excitement or enjoyment. Repertoire such as “Gahu”, “Kpanlogo” and “Tokwoe” encourages and values personal expression and style within the framework of the group effort, and the artistic expectations of this genre; precise uniformity in choreography or musical performance is not deemed necessary in this repertoire. In participatory musics where the social connections and the experience of music-making are valued over the musical output, and where there is little regard for any audience that may be present, some musical elements may not be fully planned. Details that may be unknown in WARE’s repertoire include placement of tempo changes, and order of drum variations or songs. As Turino reflects:

It would not occur to participatory musicians to attempt pre-planned detailed arrangements of who should do what when or where a particular rhythmic or dynamic shift should occur; indeed this would be counterproductive, since it would confound participants who did not attend the rehearsal. The process of getting ready for a participatory performance, then, is of a looser, more general nature, without all the care and angst of preparing for audience scrutiny (2008, 53).

We have seen how the repertoire and practices of WARE are congruent with the features, roles and values of participatory music as outlined by Turino, even if
they do not adopt all elements. These multiple factors contribute to a cohesive and engaged ensemble, setting the stage for positive health benefits.

**Entrainment and participatory discrepancies**

Entrainment plays a significant role for those musicking and engaged in participatory music-making. Examples of entrainment can be found in many aspects of human and ecological interactions such as cycles of day and night, time zones, weather, tides, predator-prey relationships, speech and conversation, and musical ensembles (Clayton 2012, Phillips-Silver et al. 2010). Ethnomusicologists Udow Will and Gabe Turow describe entrainment as an action “whereby two oscillatory processes interact with each other in such a way that they adjust towards and eventually lock into a common phase and/or periodicity” (2011, 11). The concept of time is significant here, since each process must have its own internal source of energy and interact over a period of time.

The concept of entrainment dates back to the 17th century with a simple experiment conducted by Dutch physicist Christian Huygens in 1665. Huygens set clocks with pendulums in motion and returned the next day to find they had all synchronized; the individual rhythmic events interacted over time, through the process of entrainment (Will and Turow 2011, 6). Since then, the theory of entrainment has been used in the fields of biology, physics, mathematics and social sciences. More recent discourse among anthropologists and ethnomusicologists has pointed to the ability of rhythm, particularly drumming, to produce an altered state in trance rituals around the world (Will and Turow 2011, 8). Repetitive rhythmic stimulation is a common feature in religious contexts throughout the world “which suggests that it is more than ornamental or simply
traditional” (2011, 7). In an article from 2004, Clayton, Sager and Will address entrainment and its implication for ethnomusicological research, stating that they believe that this concept can have a particularly significant impact “because it offers a new approach to understanding music making and music perception as an integrated, embodied and interactive process, and can therefore shed light on many issues central to ethnomusicological thought” (Clayton et.al 2004, 2). Looking at verbal and non-verbal signals, which can also be understood as language and gesture, Clayton and colleagues highlight the aspect of entrainment whereby the rhythms do not overlap exactly, but a consistent relationship is formed and continues to be negotiated on an ongoing basis between rhythmic elements (Bluedorn 2002, referenced in Clayton et al. 2004). A common example of this would be a conversation between two seated people where the synchronization of their individual leg movements is observed (2004, 11).

The engagement and connection between performers described earlier in the chapter does not immediately appear when WARE is in rehearsal or performance. Often there is a period of warming up, negotiation of space and artistic elements and some disorder before performers synchronize with each other. One of the major characteristics of the Ghanaian repertoire is that of repeating cyclical patterns. Most of the pieces that comprise WARE’s repertoire are anywhere from ten to thirty minutes long, and they can last much longer in their original settings in Ghana. This repetition over time allows participants to hear the rhythm around them and respond accordingly with their own bodies. As mentioned in the previous chapter, integration of both the perception and production of rhythm makes it possible for humans to systematically alter rhythmic production, based on the rhythm we perceive in our environment (Philips-Silver et al.
In doing so, we achieve group synchrony, or social entrainment. As an example, in the Ewe stick-drumming piece “Tokwoe”, the *gankogui* pattern divides roughly into two parts, the first section having evenly spaced notes, and the latter section a syncopated feel. The *axatse* pattern highlights the even beats and then rests during the syncopated part on the *gankogui*. These two unchanging and foundational instrumental parts can help the dancers lock into the basic movement for the piece, which has three even steps with one foot, and then a small leap and change of direction during the syncopated section, which is then repeated on the other side of the body. With the dense texture of the singing and interlocking drum parts happening simultaneously, it can take some time for individuals to learn to dance in time. Connecting their movements initially to the rhythms of the *gankogui* and *axatse* can eventually lead to synchrony with the other parts, as their ears adjust to the complexity of the sounds. (Table 1)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Axatse</td>
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<td>x</td>
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<td>x</td>
</tr>
<tr>
<td>Dance</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>leap</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>leap</td>
<td>leap</td>
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</tbody>
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*Table 1:* Box notation for three “Tokwoe” parts emphasizing the connection between parts on the first three beats (repeated after the leap - this table includes two cycles of the rhythm).

Entrainment can occur between an individual and the rhythms surrounding them, as well as between members of the group. Entrainment can take time to emerge, and is often preceded by actions of mirroring. When first learning these kinds of pieces, it is common for dancers to mirror other dancers, as their ability to listen and discern the rhythmic signposts might not be that developed. Over time and experience with the music, participants may catch the beginning of the pattern and know that they need to line up their first step in that spot, but the rest of the cycle may not be lining up as intended. As
they become more experienced with the music and their listening abilities are strengthened, they can use the *gankogui* and *axatse* to align themselves before and after specific variations in the choreography are called. This natural process of entrainment, or coherence over time, happens at several levels. Martin Clayton highlights three forms of entrainment that can occur: 1) intra-individual which refers to coordination between individual body parts, 2) inter-individual/intra-group which is necessary for ensemble playing, and more rarely, 3) inter-group entrainment, which refers to coordination between different groups (2012, 51). WARE participants’ individual capacity to entrain improves during the span of their involvement, which can be over a few months or years. Group entrainment is also happening in the ensemble as a whole over time, as members gain experience with the music and each other; it can also be observed within the ensemble during the timeframe of a single piece in rehearsal or performance. I have discussed this in a video analysis of one of WARE’s prior “Gahu” performances (Armstrong 2015), but this phenomenon is easily observable to those watching from an audience perspective; the intensification of performers’ experience as the piece progresses is visible as movements become more coordinated, the tempo may increase slightly, and there is more communication between performers.

In addition to musical successes through entrainment, Clayton and colleagues observe social cohesion as well, remarking “entrainment appears to be one of the fundamental processes providing an intimate connection between individuals, others, and the world around them” (2004, 11). Indeed, research shows a connection between entrainment and positive affect in communities (Clayton et al. 2004, 13). Interestingly, entrainment that is too tightly coordinated is often valued less than entrainment that is not
quite as synchronized, and in contrast, more positive social interactions result from
moderate levels of rhythmic entrainment. This negotiated rhythmic and social
relationship brings to mind Charles Keil’s term “participatory discrepancies”; he states:
“the power of music lies in its participatory discrepancies. Music, to be personally
involving and socially valuable, must be ‘out of time’ and ‘out of tune’.” He also
describes participatory discrepancy as a “semi-conscious or unconscious slightly out of
syncness” (1994, 96). Members of WARE who are new to drumming, dancing and
singing embody this state of being “out-of-time” as their skills are developing at different
rates, yet their enjoyment is palpable from their interactions. Over the course of a piece,
participants in WARE move in and out of the collective groove depending on their skill
set, their level of comfort with the musical material and their enjoyment in the moment.
Their complete focus on what they are doing can be observed. How synchronized they
are within themselves or in relation to the larger group is something they may be
consciously aware of, or perhaps that knowledge resides deeper, at a felt-sense level. The
small discrepancies of rhythmic variation and timing that are negotiated in many forms of
music create this kind of groove and invite participation (Keil and Feld 1994).
Participatory discrepancies contribute to the kind of social and rhythmic entrainment that
I am discussing; entrainment that is not too tightly coordinated, and therefore more
enjoyable. One of the greatest values of entrainment theory according to Will and Turow
is that:

In many regards, [entrainment] is a unifying concept, a concept with the
potential to cut across disciplinary boundaries and to form a coherent basis
applicable in various disciplines. It permits linkages between the cultural
and the biological as well as the individual and the social, and it offers a
new approach to understanding human action and perception as an
integrated embodied and interactive process (2011, 13).
The interior process of entrainment along with the joyous groove that results from “participatory discrepancies” and the multitude of artistic and personal relationships that are found within this repertoire are major contributors to understanding why participation in WARE can foster so many health benefits.

In this chapter, I have shown that the repertoire and practices that WARE engages with embody many of the elements found in participatory music-making. The highlighted relationships and resultant rhythmic entrainment play particularly significant roles in producing a social synchrony within the ensemble. As Turino notes, the non-hierarchical, democratic and non-competitive nature of participatory music is at the centre of social life (2008, 35). Social health is a major contributing factor to both mental and physical health; Chapter 4 will provide evidence of the ways in which this social synchrony creates an environment that contributes positively to the health and wellbeing of the students in the West African Rhythm Ensemble.
Chapter 4: Engagement and Learning through Belonging

Through the research, theory and contextual information presented thus far in this thesis, it is evident that participation in the West African Rhythm Ensemble has the potential to provide numerous health benefits: the Ghanaian drum and dance instrumentation and repertoire are participatory in nature, my pedagogical philosophy encourages collective accomplishments and personal agency, and there is ample opportunity for developing social and musical relationships, leading to emotional connection. In this chapter, we will hear from the students themselves, through presentation of the data that I collected for this case study. Experiences of both current and former members are reflected here. WARE consists of a cross-section of participants in regards to age, gender, race, ethnicity, class and learning abilities. In the findings, gender identity was recorded and in some cases analyzed; however, other differences were not recorded nor analyzed, as the focus of this thesis is on the perceived health benefits of participation in WARE to the general membership. For a discussion of the implications of participant attributes in these findings, see Chapter 5 as well as my suggestions for further research in the Conclusion.

In the introductory chapter, I presented an outline of the methodology of this research project that was undertaken at the end of the fall 2015 academic term. This chapter will provide greater detail for the methodology used in each of the three forms of data generation, and why each method was chosen: 1) written surveys, 2) audio interviews, and 3) email interviews. The chapter is organized according to data type, followed by detailed methodology, and findings for each. The findings are organized
around the larger themes of mental, social and physical health I am examining, as well as sub-themes that emerged from analysis of the results.

1) Written Surveys with current WARE members

In devising the mixed methodology for this study, I decided to include a survey for current members of WARE to allow for quantitative results to be considered in the larger analysis of the information gathered. This survey clearly established that positive health benefits were experienced by members of WARE, garnering a large amount of information with a full complement of participants. Through the survey I was able to reach nearly all of the members of the current ensemble, and to provide quantitative evidence of the impact that participation in the group had on individuals. I chose to administer a written survey during the regularly scheduled ensemble time. In order to encourage self-recruitment for this aspect of the project, members of the group were invited to participate in the survey, which was administered during an optional class after our end-of-term performance; some ensemble members chose not to participate, whereas others were absent due to illness or busy with other assignments and tests. The final class in which the survey was distributed was conducted as a social gathering, with snacks that I provided, and some video footage that we watched from our recent concert; as such, this was the most efficient and timely means of collecting this data. Members of the group completed their surveys during that time, or returned them to me within a few days. Information about the research project was given in the opening paragraph of the survey instructions, and completion of the survey indicated consent. Of the twenty-eight members in the fall 2015 group, twenty-one surveys were completed and submitted; participants were given the option to remain anonymous, which six chose to do, although
three gave their year and program of study at Carleton. Of the fifteen surveys that were not anonymous, eight identified as female and seven as male.

The survey was created in a Likert-style format, with a five-point response scale. A sample of the survey questions can be found in Appendix A. The five-point scale rating is Strongly Disagree, Disagree, Undecided, Agree, Strongly Agree, and participants checked boxes corresponding to their response. Questions were designed to measure personal opinions of WARE participants in areas of mental, physical and social well-being in relation to their experience in the ensemble. There were thirty-seven questions in total, and five of those were negatively worded questions, to correct for acquiescence, which is the tendency of the respondent to agree with a statement without fully considering its content. There is some concern that this kind of questioning may be confusing to respondents, but I chose only five of these statements, and situated them in the middle of the survey to offer a mental reboot for those participating. The survey questions addressed the following areas of inquiry, and were grouped according to elements outlined in the introductory chapter and summarized below (Table 2)

<table>
<thead>
<tr>
<th>Mental Health</th>
<th>Social Health</th>
<th>Physical Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>emotions</td>
<td>belonging</td>
<td>body image</td>
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<tr>
<td>attitude</td>
<td>communication</td>
<td>body awareness</td>
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<tr>
<td>risk-taking</td>
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<td>physical confidence</td>
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<tr>
<td>challenges</td>
<td>enjoyment</td>
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<td>academic skills</td>
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<tr>
<td>creative skills</td>
<td>meaning and purpose</td>
<td>physical risk-taking</td>
</tr>
<tr>
<td>mental flexibility</td>
<td>university coping skills</td>
<td>fitness</td>
</tr>
</tbody>
</table>

*Table 2: Subtopics of mental, social and physical health addressed in survey questions, grouped according to CAMH definitions*
Analysis of the Survey

Results from the survey were assembled into a graph (Figure 6) to show an overview of the percentages of the five-point scale for the questions. The graph was then further organized into groupings of questions under the headings of the pre-set codes of Mental Health (seventeen questions), Social Health (twelve questions), and Physical Health (eight questions). The graph clearly shows where the negatively worded questions are. When I did the analysis of the data, the negatively worded questions were reverse-scored so that I could calculate overall percentages in the pre-set codes. Results were overwhelmingly positive as to the effects of participation in WARE on the students’ mental, social and physical health. In terms of these larger categories, the positive impact on social health was the greatest percentage at 94.5%, whereas mental health came in at 88.5% and physical health at 87.5%. These percentages reflect a combination of the Agree and Strongly Agree points on the survey scale.
Figure 6: Survey results

WARE Survey Results

- I felt connected to people from different backgrounds (musical, social, cultural): 40% Agree, 52% Strongly Agree
- I learned about the value of mentoring others: 61% Agree, 28% Strongly Agree
- I felt that others in this activity counted on me: 5% Disagree, 95% Agree
- I have improved my communication skills: 52% Agree, 48% Strongly Agree
- I learned how my emotions and attitude affect others in the group: 41% Agree, 59% Strongly Agree
- Participating in WARE improved my relationship with my peers: 62% Agree, 38% Strongly Agree
- Participating in WARE improved my relationship with my instructors and professors: 40% Agree, 60% Strongly Agree
- I got to know more people in the Carleton community: 42% Agree, 58% Strongly Agree
- I came to feel more supported by the Carleton community: 36% Agree, 64% Strongly Agree
- I observed how others solved problems and learned from them: 49% Agree, 51% Strongly Agree
- I became better at handling stress: 52% Agree, 48% Strongly Agree
- I have improved my academic skills (active listening, knowledge etc.): 62% Agree, 38% Strongly Agree
- I have improved my musical/creative skills: 58% Agree, 42% Strongly Agree
- I felt stressed out when participating in WARE: 56% Agree, 54% Strongly Agree
- I felt pressured by the instructor to do something I didn’t want to do: 38% Agree, 62% Strongly Agree
- I was teased by peers for something I did in the ensemble: 28% Agree, 72% Strongly Agree
- I felt like I didn’t belong in this ensemble: 62% Agree, 38% Strongly Agree
- I was discriminated against because of my gender, race, disability, or sexual orientation: 56% Agree, 44% Strongly Agree
- My athletic or physical skills have improved: 40% Agree, 60% Strongly Agree
- My awareness of my body has increased: 56% Agree, 44% Strongly Agree
- My ability to challenge myself physically has increased: 52% Agree, 48% Strongly Agree
- My physical risk-taking has increased: 48% Agree, 52% Strongly Agree
- My appreciation for what my physical body is capable of has increased: 38% Agree, 62% Strongly Agree
- My confidence in my physical self has increased: 40% Agree, 60% Strongly Agree
- My coordination has improved: 56% Agree, 44% Strongly Agree
- My capacity to express myself physically has grown: 52% Agree, 48% Strongly Agree
- I enjoy WARE and I have fun when I am involved: 50% Agree, 50% Strongly Agree
- WARE is an important part of who I am: 29% Agree, 71% Strongly Agree
- I really focus on WARE when I am doing it: 48% Agree, 52% Strongly Agree
- I think about WARE even when I am not doing it: 48% Agree, 52% Strongly Agree
- Participating in WARE helps give my life meaning and purpose: 50% Agree, 50% Strongly Agree
- WARE helps me cope with university life: 52% Agree, 48% Strongly Agree
- WARE connects me with other people: 71% Agree, 29% Strongly Agree
- WARE helps me connect to something greater than myself: 52% Agree, 48% Strongly Agree
- I value this kind of participatory arts experience in everyday life: 88% Agree, 0% Strongly Agree
Further analysis is divided into the pre-set codes below:

**Mental Health**

In their responses, participants indicated more positive emotions and attitudes, and reduced stress and anxiety. Improvement in academic skills and creative output were attributed to their participation in WARE. For instance, 95% of respondents felt they had increased their musical and creative skills, and 81% felt that academic skills such as active listening and knowledge acquisition were improved. 100% (90% percent Strongly Agree and 10% Agree) said they enjoy WARE and have fun while they are doing it, and 90% said they think about WARE even when they are not doing it. 77% percent felt more supported by the Carleton community as a result of being involved. 81% said they became better at dealing with fear and anxiety and 62% felt that they could deal with stress to a greater degree.

**Social Health**

Survey results from this high impact area showed improved relationships, a sense of belonging and purpose, and connection to others. The highest score of the survey was found in this section, in one of the negatively worded statements: Fully 100% of participants said they Strongly Disagreed that they were discriminated against because of their gender, race, disability or sexual orientation. 100% (71% Strongly Agree and 29% Agree) of respondents said that WARE connects them to others and ninety percent stated it has helped them cope with university life. In terms of identity, 81% reflected that WARE is an important part of who they are. An improvement in relationships with peers was stated by one hundred percent (62% Strongly Agree and 38% Agree). An
improvement in relationships with instructors and professors was stated by 86% of the respondents.

Physical Health

Through the dancing, singing and drumming occurring in WARE, respondents reflected an increase in elements of physical well-being such as bodily confidence, fitness, physical risk-taking and challenges. 100% (62% Strongly Agree and 38% Agree) said that they have increased their appreciation for what their body is physically capable of, including better coordination, which was stated by 80%. Increased capacity to express themselves physically was reported by 90% and 81% felt that their confidence in their body has improved; this confidence is reflected in an increased ability to challenge themselves physically as reported by 96%.

Results from this quantitative survey clearly indicate that members of the Carleton West African Rhythm Ensemble feel that their participation does impact positively on their mental, social and physical health to varying degrees. The qualitative information found in the next two sections will give some insight into the kinds of experiences and outcomes that contribute to their health and well-being.

2) Audio Interviews with current WARE members

Audio interviews were undertaken with members of the fall 2015 WARE ensemble, following our end-of-term performance. As we saw in the research in Chapter 1, personal agency is a significant factor in the connection between music and health and well-being, so it was important to be able to generate data through dialogue with the
subjects in the study. This method of data collection was arguably the most intimate and personal. It required face-to-face time between people who know each other, in a setting outside the regular rehearsal situation. The fact that the students knew me already was likely comforting to some, and perhaps unsettling to others, in terms of their willingness to share information. I communicated my intent to conduct personal interviews to the whole ensemble, and interested students were given information documents with consent forms to sign. Of the twenty-five members in the group, fourteen expressed interest and thirteen members completed the interviews. Most of those who agreed to the interviews had already completed the survey. The interviews spanned from thirteen to forty minutes, depending on the length of answers. I did get the impression that those who came forward to do the interviews were very willing to share their experiences for the project. Most interviews were completed in early January 2016. Interviews were recorded on an iPhone, a device familiar to many, and fairly unobtrusive. Everyone interviewed was comfortable with being identified in the study and did not request the use of a pseudonym; however, I have used only their initials for the purposes of this thesis.

Mental health in particular has received a considerable amount of attention in recent years in the media and in public policy in Ontario and across Canada in an effort to de-stigmatize the topic. Many students in WARE were relatively forthcoming in discussions that may have been difficult for previous generations. Similar to other forms of data generation in this study, the questions focused on the areas of personal and artistic experiences in WARE, as they relate to the mental, physical and social health of the individuals involved. The questions can be found in Appendix B, and were fairly open-ended, similar to the email questions. However, since these were interviews, I was able
to follow through on comments with more specific queries if the opportunity presented itself. My aim, which I shared with those being interviewed, was to engage in a conversation around the topic of health as it relates to their individual experience in the ensemble, which naturally may be different from others in the group. As a result, several of the interviews produced stories and narratives that revealed subtle layers of meaning that were not possible to obtain from the other forms of data generation. In contrast, there were also interviews that were short and to the point.

Methods of analysis of the audio interviews

The audio interviews were transferred from phone to computer. I then transcribed the interviews into hand-written notes, generally in point form, but taking care to clearly record specific quotes. While I was transcribing the audio information, I recorded notes in the margins with time demarcations and the pre-set codes of Mental, Social and Physical Health. I also highlighted comments that I felt were important to the study. Afterwards, I took the handwritten transcripts and organized them into a table that further coded the responses. In addition to placing comments into categories of mental, social and physical health, I created a column for emergent themes. These are themes that came up in the comments that may have been more specific, as well as referencing more than one of the pre-set codes. As previously mentioned, all those who were audio interviewed participated in WARE during the fall 2015 academic term. The age ranged from eighteen to twenty-six years. Of the thirteen members interviewed, eight identified as female, one as gender queer and four as male. I have summarized and discussed the findings below,
using the emergent themes within the larger pre-set areas of mental, social and physical health.

**Mental Health**

*Skill Development:* Many of the participants interviewed were pleased with the acquisition of new skills while participating in the West African Rhythm Ensemble. These included increased capacity for active listening, improved rhythmic and aural skills, a new creative outlet, overcoming challenges, and learning how to be physically expressive. CP remarked that she is now “a lot more comfortable onstage with rhythm.” She previously had issues with keeping time and feels the dancing in WARE has helped her develop her inner rhythm. TY found the rhythms challenging at first; there were “so many instruments”. She said she hated the *gankogui* because she found the iron bells difficult to play but now she “loves them”. Focus was also a benefit that several students identified. RL says participating in WARE uses her entire brain, which helps her to do other tasks. She says she always does her music theory homework after a WARE rehearsal, when she is calm and has more focus. DK was of the same mind. He says there is “no daydreaming in WARE, it’s overwhelming, stimulating – helps me focus afterwards, almost like a meditative workout; [my] mind feels calm, focused afterwards, [it] helps with stress.”

*Confidence:* The development of new skills leads to confidence for many. This confidence was reflected in both artistic and personal realms for students in WARE. Samantha’s confidence grew as she learned more coordination, doing more than one
thing at a time. “It’s incredibly difficult, until *(snaps fingers)* it just isn’t, and then you are just doing it!” AK came to the group with no prior dance experience, and says it’s “a bit uncomfortable at first, but there is excitement at figuring out a move.”

LD found the Carleton Music Program intimidating, and WARE helped her gain her footing. She feels WARE is an original, unique part of the program. It’s a “great equalizer among students, no matter what their training.” DK said “WARE gave me the ability to express confidence – it built confidence.” Having danced for herself for years, when CP first joined the ensemble she was nervous to dance in front of people; now she feels much more comfortable; “[it’s] not the way we dance in Ottawa, it’s larger; such large and powerful movements; makes you feel empowered!”

*Reduction of Stress and Anxiety*: Many students commented on the rehearsal environment being stress-free. TY says “personally, I am a big worrier about everything so it’s nice to have an hour or two where I can just focus on the music.” One of the most common phrases expressed in the audio interviews was “freedom to make mistakes”. Many of the students found that WARE allowed them to focus on the music and their own enjoyment, without fear of “messing up” which can be a source of anxiety for many youth. TY later says, “my biggest fear is screwing up, but in this music if I screw up there are people around me who can support me. Like the walls are not going to come tumbling down.”

RL, who often dances in WARE, says, “unlike other dancing, which is more formal and you have to do the right thing, in WARE you can relax and not worry about messing up – you are just having fun.” She feels that sometimes music can be judgmental, no mistakes allowed; in WARE you can make mistakes and everyone laughs in a good natured way,
it’s “never something you are embarrassed about.” AK, a piano major, supports that notion, stating “as a pianist there is no room for mistakes. There is more room in WARE; you are doing it for yourself as well as the audience [in our performances].” TP also remarks on the pursuit of perfection. As the term progressed, he was “having more fun with it rather than trying to be perfect, which is one of my main problems generally with performing.” JW, who was new to WARE in the fall, feels that the ensemble “teaches people to enjoy performing and not to think about nerves, or how it is being perceived – just enjoy it.”

Flow: Csikszentmihály’s concept of flow is important in framing some of the respondents’ remarks. He states that when there is an absence of stress, combined with a balance between challenge and skill level, participants can experience flow, leading to feelings of pleasure, focus and motivation (1990). Several comments referred to that kind of heightened moment. SF observes:

There’s a couple minutes where you just forget about your individuality and you’re just part of the music and that is so nice! I over-project and worry about things without realizing it…took yoga to learn how to be in the moment. Dancing in WARE is like that…you get this kind of euphoria that seems almost out of place, because you are just in a room with all these people, it’s almost transcending. This is like yoga, but more joyful.

TY also discusses experiences of flow saying, “WARE is a good start to the week. Monday is a hard day but once I start playing, I enjoy it, [the experience] becomes in-the-moment”. LM, who came to Carleton to begin music studies at the age of twenty-four, a little older than most, says she grew up somewhat isolated, nervous, anxious, and concerned with appearances. She used to find it hard to talk to
people. She was attracted to WARE because she sees people who are fully present and “in-the-moment free spirits”, and she aspires to that.

Positive Emotions: A few of the students interviewed shared that in their personal lives they experience depression, post-traumatic stress disorder (PTSD), or feeling down, and WARE helps shift those feelings. LD, who says she struggles with mental illness finds that WARE provides endorphins that make her feel better. Before the final performance, she felt down, tired, awful, but left feeling “so happy, being around so many great people.” For some, the feeling continues past the rehearsal time. CP says she is “so happy WARE is on a Monday, as it can really change my mood.” She lives with depression and gets into “ruts”; she knows she will feel better afterwards and says that feeling continues through the week. Longtime WARE member, DK describes it as a “magnetic resonance that sort of fades as the days go on.” WARE helps RL feel happy and confident: “[It] spills into the whole week, if I miss a week I have a hard time getting through the whole week.” She experiences PTSD; WARE helps with those symptoms, lowering her stress; in fact, RL says that sometimes she uses “Monday Drumming” as a mantra. She has had trauma in her past, and WARE is something she looks forward to in her week in order to ground her. For KL, in his first year of university, the positive emotions experienced through participation in WARE are a way of connecting with others. He feels like he knows people better than he would in another, less participatory class; sometimes he sings WARE songs with colleagues during the week and these are bonding moments. KL reflects “WARE
lightens the mood, anytime in the week when [I] mention it to WARE friends, or when [I] think about it”.

Social Health

Connection: KL’s experience of connection is very common among WARE participants. As described in Chapter 2, Ghanaian music and dance is structured for maximum connection through the interlocking of various instrumental parts and the communal style of dancing. In fact, KL says that the necessity of listening for other parts actually connects everyone in the group. He says WARE helps people feel comfortable in a group performance experience, but “it’s also fun, we enjoy ourselves, we went through an experience together.” BT, who is pursuing her degree while working as a professional musician, tried at first to keep school separate and did not want to get too involved emotionally, but “when I came to WARE I understood I was only going to get something out of it if I was fully in. You have to be comfortable with the people [in the ensemble], you have to throw down those walls”. TP, a classical pianist, says “piano is less social; I’m shy by nature. I met some people [in WARE], and they were open and friendly.”

Transferring those social skills to other situations was also something that a few of the members talked about. LD finds she makes more eye contact now with people on the bus, “it’s meaningful for me - the connection.” SF remarks, “Feeling like one cog in this giant wheel is very, very fun!” It has impacted her relationships outside of WARE: “If I am somebody who is able to do this stuff,
that changes how I act with other people. Knowing that I have this cool pocket in my life makes me feel really, really great, and just have general confidence.”

*Communication:* Connection between people and between musical elements in the Ghanaian music styles can lead to stronger communication skills, which some members reflected upon. For DK, it has affected his communication in both social and musical situations. He remembers that he used to view conversations as a monologue where he was always thinking about what he was going to say next, but learning about musical dialogue in WARE transferred into other parts of his life; he learned when to listen and when to talk, expressing succinctly in his interview that now he realizes life is a “dialogue not [a] monologue.” Of his artistic pursuits, he says “WARE taught me how to know when to take control and when to lay back and just wing it in other musical situations.” TP observed “WARE helped me so much with me being able to communicate and be onstage with other musicians.” It was a challenge for TY at first who says, “WARE was a first step to meeting new people, seeing new viewpoints. WARE helped me realize that I need to be more connected to people, even though that scares me.”

*Community and Belonging:* Having a rightful, valued place in a community has strong social health implications. Membership in WARE is available to everyone who expresses interest. There are no auditions, and with a range of skills and experience in the ensemble, participants can expect to feel reasonably comfortable socially and musically. The interviews with participants for this project support
these feelings of comfort and belonging. JW says “the whole group was so open, I loved that.” AK, who identifies as gender queer, remembers “at first feeling out the gender issue, especially in dance – a lot of the movements are non-Western which is very freeing; [they are] outside normal/typical dance movements.” TY says she is shy – big groups intimidate her but she is getting used to it; WARE “feels like we’re all working together to make a really good performance.” RL also talks about being shy. She’s from a small community, and does not feel she is good at socializing; WARE helped her to be better at connection with others. She felt socially awkward at first but over time felt accepted, particularly by the more experienced members. An important moment for RL came when BO (a community member of Ghanaian descent) asked her to do a short dance duet in the freestyle section of “Kpanlogo”. This was a huge goal that she accomplished at the concert: “I realize being part of things is important! Being part of something where you are valued.” LM loves the community and people in [Carleton] Music: “People need community. How we work together is important.” She likes to support others in WARE, to bring them forward. She enjoys coaching. It’s “less about what you feel and more about lifting everyone up.”

Physical Health

*Physical benefits:* Members of WARE observed some physical benefits from their participation in the ensemble, including drinking more water, sleeping better, feeling healthier, increased stamina, increased strength, sweating and more energy. TP says “dancing in WARE is tiring! A good cardio workout.” WL feels you are “more loose and
open to all sounds around you. He says dancing in WARE “made me feel like a kid again”. JW appreciates having “a course that involves activity in the middle of the day.” KL says WARE is “lots of exercise”, that he feels better during the week, and that it gives him energy; both the community and the music make him feel energetic. He has struggled with fitness in the past and WARE has helped him “get connected to it.” Connecting to the body is a common theme. BT “wants to feel healthy and strong”; she has history of competitive sports, including a major injury and prior experience of pushing herself too far. “WARE encourages you to be aware of how you are feeling and checking in with yourself and not to overdo it. It only works if you are enjoying yourself.” SF feels similarly, in that while she is dancing, she has a positive association with doing something physical. It’s “conditioning while getting joy.” This makes her want to do “more athletic stuff” and even influences her choices around the food she eats, as she feels she is “investing in herself.”

*Body Image:* Several students discussed issues surrounding body image in relation to their time in the ensemble. JW appreciates the value placed on “curves”, and finds it’s a boost to her body image. This is “accentuated by the [Ghanaian cloth] wraps we wear for performance.” CP says she took childhood dance classes for only a short time, as she has always struggled with body image. She felt “alienated” in those early classes. “African dancing is sensual and expressive; [it] helps me to harmlessly interact with people of a different gender. I [used to be] always scared of contact with people.” She also talked about her former “bubble space” which kept others away but WARE has “burst her personal bubble space”; now she allows people to come closer on stage, and she can
“focus and accept the expressive nature of the music”. SF has been self-conscious about her body in the past, and feels that WARE has been “really, really helpful in terms of body image”. Of the African dancing, she says “It’s sensual, not at all what ballet or tap was like.” WARE has helped her become more physically aware of her body, and to be “friends” with her body: “That re-sets the context of how you see yourself.” KL also found that WARE helps him “not to be self conscious about [his] body on stage” This is new for him because he feels so engaged with the [Ghanaian] music; he thinks about “getting more energized instead of thinking about whether he messed up or how he looked.” LD speaks about physical vulnerability. She feels that “WARE helps with body image, even subconsciously, just doing the moves, I look forward to that part of it.” For other students, body image is not an issue. TP reflects that he has “never danced before, but I’m not the type to worry about what other people think.”

**Bodily Learning:** The dancing in WARE is intricately connected to the drumming and singing through specific rhythms and corresponding motions. Many students found this connection helpful. BT says “when you are singing and memorizing as you learn, it’s already a full body experience: movements go with words.” For DK, he never saw himself as a dancer or someone who feels music “properly”. “At first, [WARE] sounded like a bunch of noise, undifferentiated”, but then he connected through his body. Drumming gave him confidence in the dance. LM uses WARE to develop her rhythmic sense; she “feels rhythm, since we do it with our bodies.”
3. Email Interviews with past WARE members

Carleton’s West African Rhythm Ensemble has been in existence for eight years (at time of writing), beginning in the fall of 2007. Many students participate in the ensemble for several terms during their four-year degree, and a few have stayed involved as community members for some time after completing their studies. There is a strong bond between members, and graduates have stayed in touch with each other and myself through social media sites. In designing this study, I felt it was important to hear from these former members, as their voices and reflections could potentially add a richness that time, distance and experience can offer. During the summer of 2015 I sent out a general invitation to participate in the research through the WARE Facebook group page, to which many of the former members of the ensemble still belong. In addition, I reached out through email to several members individually to invite them to participate. Of the fifteen former members who expressed interest, twelve completed the email questionnaire by mid-January of 2016, after receiving information documents and consent forms. Two respondents were also participating in the fall 2015 term, as senior members who had been in the group for a few years. Since this was the first form of research I conducted, they were eager to participate, given their long-time experience with WARE. The email respondents ranged in age from twenty-one to forty-six years, with most being in their late twenties. Of the group, two are male and ten are female. The responses were in the form of email answers to questions that focused on their time in the ensemble in relation to their artistic and personal experiences, as well as any perceived benefits to their mental, physical and social health. The questions (found in Appendix C) were of a general nature and rather open ended, to encourage a wide range of
interpretations and responses. Based on the analysis of these responses, in comparison to
the data generated by the other forms of collection, these former participants had
reflected considerably on the impact of their WARE experience during their time at
Carleton and in subsequent times in their lives.

Methods of analysis of the email interviews

All correspondence around the email interviews with former members of WARE
was conducted electronically. I collated those individual responses by organizing and
then grouping them under the six question headings. I then took the responses and
inserted them into the same table I used for the audio interviews (Table 1). In addition to
placing comments into the pre-set codes of mental, social and physical health, I created a
column for emergent codes. These are themes that became apparent in the comments that
may have been more specific, as well as referencing more than one of the pre-set codes.
In doing so, I occasionally had to split up an individual’s responses to the general
questions, but for the most part, large blocks of feedback remained intact in the quotes
presented below. It was clear that the comments from this form of data collection were
often more reflective, presumably due to the maturity of the individuals and the distance
they had from their experience in WARE. As well, the questions were more open-ended
than the audio interviews or the surveys, to allow for more freedom for interpretation by
the participants.
Mental Health

Skill Development: Former members of WARE found that the ensemble was musically challenging and helped them develop several artistic skills that contributed to their overall musicianship, their confidence, and their ability to musically multi-task and feel comfortable learning unfamiliar material.

RD:
[WARE] has been a new way to interact with other musicians, improve listening and multi-tasking skills; singing and playing is not an easy accomplishment.

KJ:
When I began to actually attempt to play this music I will admit I did experience some difficulty. Most of the rhythms found in this music are rather simple on their own but when put into context are rather tricky.

BT:
It stretched me as a musician in ways which I’m not accustomed to, in a supportive environment. Learning songs and drumming/bell patterns by ear with mnemonics is not something I’ve done regularly since I was a small child. It has encouraged me to further develop my aural learning skills.

GL:
I really enjoyed that the ensemble approached the music holistically. You had many different entry points into the music. Once I understood the drumming patterns it was easier for me to understand the dancing which made the singing seem almost automatic in grasping musically. All three seemed to be a way in. All the disciplines (drumming, singing, dancing) worked together and wherever one’s musical inclination or strength lay, could be used as an entry point to the other disciplines required of the ensemble. It tested boundaries and challenged dormant skills within you.

TS:
The ensemble really helped me learn to feel the music I was performing. With no conductor to follow, the ability to create a coherent music relied heavily on listening to your fellow musicians, and working together in the spur of the moment. I couldn’t work mechanically but transitioned my musical performances from mechanical to more emotional. I also learned how to memorize music for the first time.

WARE offers opportunities for these students to develop and improve a wide range of skills, which is important since they come from such varied music backgrounds. Over the course of their involvement, some have developed their listening skills, memorization,
rhythm, singing, movement and comfort with performing. As we saw with
Csikszentmihály’s concept of flow, these kinds of challenges, when balanced with their
existing competencies can contribute to feelings of pleasure and well-being, important for
mental health. The supportive environment in WARE also appears to facilitate a relaxed
learning situation where the members can learn at their own pace and fill in any musical
gaps without feeling pressure.

Stress Relief: Although many of the email interview respondents are a few years
removed from their time in WARE, several remember the ways in which this
music and dance relieved stress.

GL:
I was in a very intense vocal studio when I was at Carleton University and
I often felt a lot of pressure to be the perfect opera singer. It’s a strict and
rigid training. However, I am not a rigid person. I am rather curious and
believe there’s many ways to do something right. I found the ensemble to
be a bit of a refuge during that time. Everyone really loved the work we
were doing and it created a sense of community in a programme that is
fairly diverse in its course options.

SG:
There was no particular homework allowed, no papers to write. It was a
stress-free environment that nurtured friendship and our love for music.

KM:
I personally used the African drumming ensemble as an escape from the
stresses of the music department and student life. It was an easy way to
reset my week and it was conveniently held on a Monday morning (that
helped too).

Working in community appears to foster a sense of stress relief for these students.

The participatory nature of the music and dance allows them to enjoy music
without needing to prove themselves or compare themselves to others.
**Positive Emotions:** Emotional health, integration of emotions and dealing with grief and depression were some of the themes that emerged from the email responses. Repetition of rhythmic patterns, melodies and movements contributes to emotional engagement (Margulis 2013). WARE’s repertoire contains a significant amount of cyclical and repetitive material. Several of the students remarked on the mental re-occurrence of the repertoire throughout the week between rehearsals, and the positive impact this had on their well-being.

KM:

I have struggled with depression as long as I can remember. In short, this made some days really hard. Being in university did not help as I never felt like I fit into the academic mold. But playing music has always made me feel purposeful and instilled me with a passion for life. So I took advantage of the playing/performance aspect of the Carleton music program, playing music in as many situations as possible. For the most part throughout my degree, I was starting my week with drumming, singing and dance.

TH:

Afterwards, my spirits were definitely higher than what they were before the ensemble. You just get so pumped and ready for more once the time is over (at least for me). The songs and harmonies would also get stuck in my head very often which would then remind me of the whole ensemble experience and lift my spirits once again.

Having an opportunity to engage with this kind of musical activity at the beginning of the week seems to counter the Monday blues that many people anecdotally refer to. The repetition of the rhythm gets embedded in the body and mind, and continues to have repercussions afterwards and in other situations. This connection between repetition and positive emotion will be discussed further in Chapter 5.

**Confidence and Self-Esteem:** During the turbulent adolescent time, there are many challenges for students at university; finding your place and purpose, adjusting to
independence and living away from home, academic challenges, and new freedoms and responsibilities. For some of the respondents WARE aided in their acclimatization to university life.

KJ:

Many times after rehearsals I would be slightly physically tired but mentally I would usually be quite upbeat and would have a general feeling of accomplishment. Singing and dancing are great ways to make one feel good and a rather easy way at that.

DD:

If anything is taken away from this, it's that, I felt good about myself; where I was in my own headspace and that was directly affected by this ensemble and how I now see myself as a person and a professional.

KM:

Doing things that were outside of my comfort zone (like singing and dancing in the ensemble) gave me confidence. Eventually, fellow members of the group would ask me for help or advice with their parts - that made me feel like a working part of a community.

JW:

Having a sense of community and belonging helped my self-esteem and mental health through the tough years of adolescence and beyond. It also gave me a place to escape to in university and now in my career. After a long week or long day, I can come to practices and focus on something rhythmic and organized for a while.

SP:

Over the years I grew more confident and before I knew it, I had become an unintentional leader. Although I wasn’t a very ‘vocal’ leader, I was able to easily lead by example. For me, this ensemble made my university career. Academics have never been my forte but this ensemble allowed me to excel and gave me a reason to continue working hard in school.

WARE offers a place of refuge for students to enjoy themselves and forget about responsibilities for a time. This mental and physical break allows them to discover their strengths, including leadership skills and better knowledge of themselves. For many of the past members this confidence and knowledge has carried forward into their lives after university.
Social Health

From the email responses gathered, it appears that the social benefits of participating in WARE were extremely valuable and long lasting for many members. Most can be included in the emergent theme of Community and Friendship:

SG:  
What I loved about the ensemble at a personal level was that it was a very social group. We took turns playing the instruments, dancing and singing. We were from all different backgrounds and age groups. It was a place of friendship and tolerance. I still miss it to this day and I feel grateful to have had such a unique experience during my time at Carleton.

SP:  
This wasn’t just like any other ensemble – we built our own, small community. It was amazing to be a part of something so special and be able to see the ensemble develop over the years.

DD:  
I felt connected with my peers and to be able to share these artistic connections / feelings with the group, was an amazing experience. [It] helped to cement many of the relationships that I hold dear to myself today. CUWARE was a part of the culture of the music department while I was at Carleton and it brought a sense of community to the department, in which, could sometimes feel cold and dark. We are always going a thousand miles a minute with school, work, and other necessities that we feel are important. We forget that community and friendships are what get us through the hardest times in our lives.

JW:  
The way that the music is organized, where each person learns to play and perform each part of a piece, so that each member is on equal footing as every other member, it creates such a strong community that can really rely on each other both in performance and in our social gatherings outside the music.

TS:  
[The] communal experience went beyond just the ensemble, the friendships created within the ensemble stretched out into university friendships and actually introduced me to someone who remained my best friend even outside of university. It brought different social groups that would not normally interact with one another together into a group that enjoyed being around each other.

Participatory musics such as the repertoire WARE engages with encourage a wide cross-section of membership, allowing for relationships to develop that might not
otherwise. Several of the students remarked on the inclusive and open-minded nature of the group, and the important bonds and long-standing friendships that developed.

Physical Health

Dancing in WARE provided many of the respondents with opportunities for fitness. In a university music program, this is an unusual opportunity. Physical health appears to have an impact on both their mental and emotional health and this is supported in the research (Freeman et al. 2009, 121). Several of WARE’s former members discussed the connection between their emotions and the physical workout at rehearsal.

TH: 
Since I preferred dancing rather than the rhythm section, my body got a huge workout. The dancing is very demanding but in a good way because you don’t even realize you’re tired until the song stops and you have a moment to reflect.

SP: 
The dancing portion alone is a workout! Every time I danced I felt that I was exercising and moving my body in different ways than if I was working out in the gym – trust me, you would feel the burn the next day! Not only was I feeling a physical impact but an emotional one as well. Every time I left class I found that I left with a smile. Not only was I exercising physically but I was free to exercise my mind.

SG: 
The 2 hour rehearsal was like an emotional and physical workout for me every week. I definitely enjoyed getting to move around a lot and use both my brain and body during the entire rehearsal.

TS: 
In my second year of the ensemble I was involved in a car accident that left me with severe whiplash in my neck and back. It was a very difficult time for me as I was in great pain with any kind of movement. I spent part of my recovery time only playing drums so I could remain seated. I had mixed emotions of the ensemble during this time, it was very physically painful but I was reluctant to leave because it was such a supportive community that helped me emotionally when I felt depressed from not
being able to move properly. Months into my recovery, I began taking part in more moving and dancing and I began to enjoy the dancing portions of the class with more fervour than ever before. Once in my third year of the ensemble, I felt much better and began seeing myself becoming more fit with more endurance than ever before and it grew to be a wonderful workout. I would push myself harder each week and it grew to be easier over time. I found myself pushing myself beyond anything I was able to accomplish before.

BT: 
I looked forward to how energized and connected to my body I felt - every Monday! [Mondays were] an extremely long day for me, and WARE really helped me get through that day and stay energized. I am not particularly interested in organized exercise/going to the gym, but I find it incredibly important to my physical/mental well-being that I walk, bike and dance for pleasure as much as possible. I appreciated how physically strenuous [WARE] often was without that ever being the intention.

Physical workout in the ensemble occurs in the dance movements but also in the physicality of drumming and singing. The connection between physical health, mental health and social health is intertwined, as the former members have reflected.

Members of the West African Rhythm Ensemble, both current and former, have provided articulate and heartfelt accounts of their time in WARE and the benefits to their well-being. Social health, mental health and physical health are all impacted positively by their participation in the ensemble, including many instances of overlap, with one benefit promoting another. This chapter opened with a detailed description of the methodology employed for this research project. Through analysis of the three types of data collection, this chapter supplied evidence of the positive effects on health and well-being that participation in the Carleton University West African Rhythm Ensemble provided for its members. The quantitative survey results graph indicates the extent of the perceived impact of participating in the ensemble by the members involved in the fall 2015 term. Through qualitative audio interviews with some of those same members, we attain a
deeper understanding of the personal significance of the experience of individuals in the
group in relation to their mental, social and physical health. The descriptive reflections
found in the email responses from former members of WARE provide personal insights
that underscore the health benefits from their past participation that continue to have
significance in their current lives and the people they have become. This analysis will be
further elaborated upon in the discussion to follow in the next chapter.
Chapter 5: “Happy Yourself”4: Discussion and Implications

The objective of this research project was to examine the ways in which participation in the Carleton University West African Rhythm Ensemble (WARE) contributes to positive health and well-being for the students involved. From the quantitative and qualitative findings reported in Chapter 4, it is evident that participants experience significant benefits in mental, social and physical aspects of their health while engaging with the Ghanaian repertoire and interacting with each other in WARE. This chapter discusses those findings as they relate to the framework of this thesis: 1) current research in music, health and well-being; 2) central concepts of musicking (Small 1998), participatory music-making (Turino 2008), and entrainment; and 3) WARE’s repertoire and educational practice. This discussion is organized around the three areas of health that I am examining: mental, social and physical, and will reference any perceived overlap between them.

Mental Health

“WARE reminds me that taking a moment to play some music with friends, to dance around and laugh and to be part of something expressive [are] all key to living happy and healthy.” –RD

As noted in earlier chapters, mental health has been shown to have a significant impact on the social and physical health of an individual (CAMH 2013). In the introduction to this thesis, I outlined aspects of good mental health that have been

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4 “Happy Yourself” is a common Ghanaian expression that expresses the power of an individual to bring about their own happiness and well-being. It is often quoted by my teacher Kwasi Dunyo who says “Happy yourself. No one go happy you”. It reminds me of the resiliency of the students in WARE, and their awareness and ability to recognize what they need in order to thrive.
identified by the Mental Health Commission of Canada: resiliency, emotional literacy, academic and risk-taking skills, mental flexibility, the ability to overcome challenges and general attitudes surrounding self-worth (MHCCYC 2015). WARE is first and foremost an educational opportunity for music students at Carleton University. Through many academic and performance-based programs in the music department, students study their major instruments, become better musicians through practice and collaboration, and attain knowledge of their field in a wider context.

From the research presented in this study, we observe that WARE provides students with increased musicianship and academic skills. Rhythm often seems to be a challenge for many incoming students and the focus in the ensemble on developing rhythm through drumming and movement provides an opportunity to improve their listening skills, their ability to grasp rhythms and retain them, and synchronize with others. Students also improve their coordination and multi-tasking ability (engaging in singing, drumming, dancing), and enjoy an increased level of comfort being on stage. It is important to note that these skills are being developed in a relatively stress-free environment of collaboration, enjoyment and full-body participation. This environment reflects the nature of the Ghanaian music and dance repertoire, which has many elements of participatory music-making (Turino 2008), as we have seen in Chapter 3. These elements include specific musical features, roles and values that encourage participation and allow for multiple levels of expertise to work together. The fact that students generally begin on an equal footing, having never participated in this kind of ensemble before, seems to relax expectations for them. Many of the members who were interviewed describe the pressure of high expectations in university, both from external
and internal sources. Their time in the ensemble appears to be a break from academic and social pressures and carries over into other parts of their week and experiences. As HL notes, “the work in the ensemble kept me alert for many days afterwards.”

Once the students are relaxed they seem to learn more effectively and approach other new situations with more confidence. This results in a willingness to take more risks and the development of leadership skills, which contributes to a sense of purpose and belonging. KM refers to her sense of belonging when she says, “eventually fellow members of the group would ask me for help or advice with their parts - that made me feel like a working part of a community”. My pedagogical style encourages the students to learn from each other, which creates opportunities to try new activities and be comfortable with mistakes. Confidence was a major theme that emerged in all forms of the collected data. Many students reflected that this personal confidence plays out in other areas of their lives both in musical and non-musical situations. A career in music requires individuals to be flexible, open to new situations and able to work well with others. These skills can be developed in an educational ensemble such as WARE, where the outcome is not as important as the immediate skill building and experience. As previously discussed, Pierce (2012) and Solís (2004) both advocate for opportunities for students to participate in global musical ensembles where process is valued over product and where students can explore new traditions, develop social bonds and create community.

We have seen from the research presented in Chapter 1 that emotional health plays an important role in positive mental health. The work of cognitive scientist Elizabeth Margulis reveals a fascinating connection between repetition in music and
positive emotions. Her studies have shown how repeated listenings to sections of music (or listening to music that contains repeated passages) fosters emotional attachment and significance (2013, 1). Her findings suggest to me that the highly repetitive nature of WARE’s repertoire would serve to create strong connection and meaning for the participants. Margulis states “reencountering a passage of music involves repeatedly traversing the same imagined path until the grooves through which it moves are deep, and carry the passage easily. Peak musical experiences tend to resist verbal description, bypassing conscious control and [speaking] straight to feelings, emotions and senses, to effect an altered relationship between music and listeners” (2013, 3). Although her work is primarily focused on listening to music, one could presume these powerful effects on emotional well-being would be amplified by those engaging with repeated passages of music as a performer, and in the case of members of WARE, by way of multiple bodily experiences with the music through singing, drumming and dancing. Long-time WARE member TH describes the sort of experience Margulis is referring to when she says, “The songs and harmonies would also get stuck in my head very often, which would then remind me of the whole ensemble experience and lift my spirits once again.”

The aspect of entrainment factors into this discussion, since entrainment reflects the process of two or more independently generated processes which interact over a period of time and become synchronized with each other (Will and Turow 2011, 6). WARE’s repertoire allows for entrainment to occur, not only due to the cyclic and repetitive patterns in the music and dance, but in the lengthy time frame of pieces such as “Gahu”, “Tokwoe” and “Kpanlogo”. If the repeated passages in WARE’s pieces produce entrainment at the intra-individual and intra-group levels (Clayton, 2004), it is likely that
positive emotional connection is also happening, which is substantiated in comments made by the members of the ensemble. If we return to the Mental Health Commission of Canada’s definition of positive mental health outlined in Chapter 1, we can see from the responses of the students that participating in WARE offers significant benefits:

Mental health is a state of well-being in which you can realize your own potential, cope with the normal stresses of life, work productively, and make a contribution to your community. Good mental health protects us from the stresses of our lives and can even help reduce the risk of developing mental health issues. (MHCCYC 2015)

Social Health

“Life is a dialogue, not a monologue.”-DK

This thesis has explored several aspects of social health through thematic frameworks, discussion of relevant literature and research with current and former members of WARE. These aspects of social health include: relationships, communication, belonging, community, collective enjoyment, group problem solving, meaning and purpose (CAMH 2013). Many of the students had very positive comments and reflections regarding the ensemble as a site that fostered friendships and developed community among a diverse group of students. In the survey, 100% of respondents stated that they did not feel discriminated against because of their gender, race, disability or sexual orientation. This reflects the inclusive nature of WARE’s repertoire and the educational practices employed in the rehearsals and performances. The importance of relationship that Christopher Small places on the act of musicking is certainly present when talking about the social health of the participants. Musical relationships in WARE that are developed through elements such as call and response, layers of interlocking rhythms and
gestural mirroring, result in mentoring relationships, friendships and strong collegial connections. This can be enormously beneficial and reassuring to students. As one former WARE member reflected,

I was shy, introverted and really scared my first year of university. The ensemble allows all the performers to interact on a personal level, beyond just making music together. -TS

This kind of inclusiveness and community is commonly found in participatory musics (Turino 2008) and the subsequent feelings of belonging are a significant predictor of engagement (Bowker et al. 2015). However, community is often lacking in North American culture and particularly in university settings that may have large populations and hierarchical, competitive structures (Pierce 2012, Putnam 2000).

Stronger communication skills were cited as another advantage from participating in WARE. Communication is highly important to musicians who must develop a “give and take” approach to both verbal and musical conversations in various educational and professional settings. Students that were interviewed indicated communication skill development in two ways: first, they became more proficient at talking and problem-solving with others in the ensemble when negotiating various logistical and musical elements of rehearsals and performances; secondly, they used the model of call and response and turn-taking as a literal example of what a conversation or verbal negotiation should be. Participating in the West African Rhythm Ensemble offers students a place to belong, fostering relationships and skills that lead to broader connections in the music department, across the university and in future professional situations.
Physical Health

“When I am doing something where I am moving, I’m happier, I’m in synch, expressive.” -LM

In this study we have been examining physical health as it pertains to a person’s experience of fitness, body image, coordination, physical awareness and expression. As noted in Chapter 1, Anne Bowker’s research profiles two types of physical esteem: changes to the body resulting in a better self-image, and that of skill acquisition and the development of competence, leading to greater overall self-esteem (2006). For this reason I included body image in the physical health section, although it could additionally be considered an aspect of mental health. Several current and former members of WARE discussed the impact of their experiences involving movement while playing instruments and participating in the dance choreographies. Many members felt they had had a physical workout without realizing it, and enjoyed the feelings of euphoria that ensued. In some cases they experienced better sleep patterns and a desire to eat well and drink more water. Their connection to their body became more positive, allowing a heightened awareness. As WARE member WL noted “you are more loose, and open to all sounds around you”. Several of the members remarked on the positive effect of participating in a physical activity that appreciates all body types, allowing them to feel fit and attractive, which translated into improved self-confidence. As SF observed, that confidence “resets the context of how you see yourself”. For others, the dancing provided a physical way into understanding the rhythms that they found difficult to decipher through traditional cognitive means, which then reinforced their grasp of the material.
The dancing and general physicality of participating in WARE also had an impact on emotions. Students reported feeling “empowered” and in a better mood following rehearsal, a feeling which sometimes lasted for days. Education researcher Katherine Weare notes that “without physical challenges to discharge emotion we are left in a state of stress and tension” (2000, 2), and so emotion is another area where there is an overlap with mental health. Dancing, according to SP, gave her feelings of both physical and emotional pleasure. A person’s physical health is often the most visible sign of overall health and well-being, and several studies show links between positive mental health and physical health (CAMH 2013). The WARE case study supports those findings.

A major focus of this research project has been the nature of the music itself, a factor that has often been left out of descriptions of music and health research (West and Ironson 2008). As this thesis has shown, the music and dance repertoire that WARE engages with is at the very core of the positive health benefits described by the students. The inherent features of the pieces embody many of the principles of musicking, participatory music-making and entrainment, which can provide conditions that are conducive to positive mental, social and physical health. WARE provides an educational environment that invites participation, encourages the development of new skills, allowing students to learn in a stress-free environment, which heightens their emotional experiences and develops their confidence as musicians.

The implications for this kind of positive musical experience can be expanded outside of the training of students in a university setting. Many researchers and practitioners who work with different aspects of adolescent health highlight the
importance of working from competencies (Bowker 2006, Madsen 2009), which is a focus on an individual’s perceived abilities in order to provide support. Working from a person’s competencies supports the “salutogenic model” of health (coined by Antonovsky) that looks for ways to support health rather than focusing on disease (1996). In disciplines such as psychology, psychiatry, education, sports and arts, it is increasingly common for practitioners to identify, support and grow competencies, rather than focus on perceived shortcomings or problems. This re-orient both the client and practitioner to what is working, and not what isn’t working. Psychologist William Madsen, a leader in the movement towards positive alliance between clients and therapeutic workers, advocates for approaches where workers are seen as allies in the clients’ struggles to resist challenges in their lives (2007, 22). This paradigm aligns with elements of participatory music where everyone has a voice in the outcome and works collectively towards a common goal.

In counseling settings, Madsen calls for a relationship built on respect, connection, curiosity and hope, (2007, 20) where the therapist works with the client rather than earlier therapeutic models in which the client is acted upon. Madsen advocates for an appreciation of what is already working in the client’s life. In this way the work begins from a point of strength, not weakness. The practice and pedagogy of the West African Rhythm Ensemble fits into this model easily. Each session builds upon the skills learned in the previous session; everyone has opportunities to improve each time, and is working together for the larger whole of the music and dance. Each member of the ensemble brings their own expertise to the larger effort, and has opportunities to develop new strengths supported by those around them who are offering their own best talents. As
director of the ensemble, I teach when it is appropriate, but I also look for ways to 
facilitate peer learning. Madsen says we must look carefully for the competence in a 
client. “Competence is quiet; it tends to be overlooked in the noise and clatter of 
problems. We need to listen carefully for it” (2007, 32). Participation in WARE is an 
active, attentive and engaging activity, connecting people to themselves and each other. If 
it is conducted in this way, then it is easy for competencies to emerge and be noticed by 
individuals and those around them.

As I discussed in Chapter 1, Connecting the Dots: How Ontario Public Health 
Units are Addressing Child and Youth Mental Health survey identified only three arts-
based programs in the province that support youth mental health (CAMH 2013). It would 
be desirable for arts programs to partner with agencies that are addressing youth health to 
develop projects that could support each other’s goals, given the evidence presented in 
projects across Canada that have effectively used the arts to address social and health 
issues. Summarizing prior research as well as their own studies, the authors of list the 
characteristics of successful arts interventions:

Arts instruction, disciplined effort, extended periods of engagement, 
complementary program components, ties with community organizations, 
youth mentorship opportunities, and an emphasis on 

The above characteristics are present in the design and practices of the West African 
Rhythm Ensemble. Just as this current case study has implications for therapeutic fields, 
we should acknowledge that through participation in WARE, the educational objectives
of the Music Department at Carleton University are being met, while also contributing positively to the health and wellbeing of the members in the ensemble.

A positive and supportive learning environment plays a key role in students’ success, as does connection with peers (Freeman et al. 2011, 63). From their research with school-age youth, the Public Health Agency of Canada states “as young people progress through school they are less connected to school, at a time when their emotional well-being is most vulnerable” (Freeman et al. 2011, 64). School can provide a significant opportunity to make connections with peers. The Public Health Agency’s findings also show that “positive school environments and higher levels of teacher support are associated with more positive levels of mental health” (Freeman et al. 2011, 64).

Although the Public Health Agency’s research was conducted with youth, many of the students entering university are at the upper end of this age group, and certainly still within the adolescent range in terms of social and emotional development. The implications discussed in this chapter underline the importance of cross-disciplinary work in order to share strengths and knowledge from many fields in order to maximize the support and opportunities for adolescents’ best health. In the words of the WARE members, participation in the ensemble has provided creative and academic skills, relief from stress and anxiety, belonging, community, confidence, connection, positive self-image, positive mood, fitness, friendship, and tolerance.
Conclusion

One of WARE’s best-loved pieces is “Gahu”. The syncopated and cyclical \textit{gankogui} pattern expertly propels drummers, dancers and singers forward physically, musically, and metaphorically, creating an energetic loop that over time fosters a shared positive experience. The rewards of involvement in the West African Rhythm Ensemble resonate powerfully throughout the members’ university years and into their future lives.

In this thesis, I have connected my background in Western percussion, my experience in Ghanaian music and dance, and my interests in the transformative nature of making music together as a community, in order to look at drumming, dancing and singing as a beneficial component of health for members in Carleton University’s West African Rhythm Ensemble. The qualitative and quantitative research I conducted with current and former members of WARE demonstrates the presence and impact of the mental, social and physical health rewards of their participation in the ensemble. I have shown how the distinct participatory repertoire and educational practices of WARE are defining factors in the positive health benefits described by the students. Music of all kinds and in many settings has been shown to have a positive impact on health, recovery and well-being (Clift and Hancox 2010, Koen et al. 2008). Ghanaian music and dance as experienced in WARE can offer tremendous value to university music students.

Towards the end of this thesis writing, the Centre for Addictions and Mental Health (CAMH) released its most recent study on the state of youth mental health in Ontario. Since their last findings in 2013, the psychological distress of youth has increased by 10% (Boak et al. 2016). Psychological distress, as outlined in the study, includes symptoms of depression and anxiety as well as feelings of nervousness,
hopelessness and low levels of self-worth. Levels of distress increase significantly in the later teens, to over 40% of students in grades eleven and twelve. The research indicates that the later teen years into the twenties is the peak period of stress for many people (Boak et al. 2016, i-xi). Given the age range in undergraduate university programs (eighteen to twenty-two, approximately), the above CAMH findings suggest many compelling reasons to apply the information contained in this case study to the planning and implementation of educational and community based programs. Continuing to offer opportunities such as WARE to music students as well as looking for ways to integrate similar programs across the university and in the larger community could support the efforts being made towards addressing the urgent issues surrounding youth mental health.

Despite the alarming rates of distress outlined above, my own view towards the state of youth wellness in our society is rather optimistic. Many students are highly attuned to the issues surrounding their health and well-being, and are at ease discussing them openly. They are willing and articulate partners in pursuit of their own best health. I will continue to support their personal efforts and musical development through my work as a musician and an educator, and advocate for similar types of arts engagement for the general youth population.

Limitations and Recommendations for Further Research

To date, there has been a lack of research on the benefits of drumming for health and well-being, although the larger field connecting music and health is growing rapidly. This case study set out to make a contribution to this body of research, with a particular focus on the participatory style of Ghanaian drumming, singing and dancing repertoire as
practiced by a university educational music ensemble. The findings in this case study are in line with similar studies in the field of choral singing, as mentioned in Chapter 1 of this thesis, which stated that participating in choral singing results in positive affect, focused attention, deep breathing, social support, cognitive stimulation and development of regular commitment (Clift and Hancox 2010). Due to time and scope restraints, the WARE case study did not include physiological testing, which several singing and health studies have employed. This would be desirable for future research in the area of drumming and health and specifically with the West African Rhythm Ensemble. Physiological testing could include assessments of breathing and heart rate, prior to and following WARE rehearsals, and saliva testing to measure levels of cortisol, determining any change to activity in the immune system. It would also be beneficial to use a research instrument such as the World Health Organization’s Quality of Life survey (WHOQOL, 2014), which asks respondents to assess their current health prior to the research being conducted, in terms of stresses or challenges they may be facing. Some of the students who were interviewed for this study alluded to issues pertaining to various health challenges they have faced or currently face and reflected on it in the context of their observations, but it was not specifically documented or analyzed as part of this project. The impact of participation in WARE on an individual’s particular health challenges could be more clearly measured and understood with this kind of background information.

Of particular interest in this case study is the breakdown of gender in the participants. Those in WARE who completed the quantitative survey were fairly evenly divided between males and females. However in both qualitative methods of data
collection, there were far more female respondents than male. Clift and Hancox note that in many studies looking at singing and health there is a lack of attention paid to the gender of subjects (2010, 92). Clift and Hancox’s own cross-national survey of 1124 choral singers “found evidence that women reported stronger well-being benefits associated with singing than did men” (2010, 92). Clift and Hancox also found that women were more likely to “endorse the wellbeing effects of singing more strongly than men” (2010, 92). From the findings I obtained across the three forms of data collection, it was not clear whether women experience more benefits than men from participating in WARE, or if women are more likely to come forward to discuss those benefits. Clift and Hancox suggest these kinds of gender differences should be studied more: “They may reflect a broader sex difference in emotional sensitivity and expressiveness, with women and men experiencing similar benefits, but with women expressing themselves more strongly in this respect” (2010, 92). As mentioned in my methodology, it would be of interest in future studies to examine the gender make-up of the group as well as race, ethnicity, class, learning disabilities and prior health issues. Doing so would provide a more comprehensive understanding of the implications of the findings, leading to more valuable recommendations for future research and programming.

“I can’t think of a better way to kick-start the mind, body and soul.”-KM
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Appendix A: WARE Survey questions

Survey Header
Thank you for your interest in this research project. This study is being undertaken as part of my Master’s thesis research. The goal of this research is to learn about personal experiences of Ghanaian drumming, dancing and singing in Canada, its effects on health and well-being, and the artistic pursuits of those involved. This survey is about your musical training, background, interest in world music in general and Ghanaian music and dance in particular, and your experiences in participating in the Carleton West African Rhythm Ensemble, including any benefits to your health and well-being. Participation in this survey is optional. You also have the option of being identified or remaining anonymous. You do not have to answer all of my questions and may end the survey at any time. You may withdraw from the study until April 30, 2016 by contacting myself or my research supervisor, Dr. Anna Hoefnagels. If you have identified yourself on this survey and wish to withdraw, it will be destroyed.

Survey Questions (unformatted) - for current students in the West African Rhythm Ensemble

Using a scale of 1-5, please check the response to the following statements that most accurately describes your experience in the Carleton West African Rhythm Ensemble:

1 Strongly Disagree; 2 Disagree; 3 Undecided; 4 Agree; 5 Strongly Agree

1. I felt connected to people from different backgrounds (musical, social, cultural)
2. I learned about the value of mentoring others
3. I felt that others in this activity counted on me
4. I have improved my communication skills
5. I have improved my ability to work with others towards a common goal
6. I learned how my emotions and attitude affect others in the group
7. Participating in WARE improved my relationship with my peers
8. Participating in WARE improved my relationships with my instructors and professors
9. I got to know more people in the Carleton community
10. I came to feel more supported by the Carleton community
11. I observed how others solved problems and learned from them
12. I became better at dealing with fear and anxiety
13. I became better at handling stress
14. I have improved my academic skills (active listening, knowledge etc.)
15. I have improved my musical/creative skills
16. I felt stressed out when participating in WARE
17. I felt pressured by the instructor to do something I didn’t want to do
18. I was teased by peers for something I did in this ensemble
19. I felt like I didn’t belong in this ensemble
20. I was discriminated against because of my gender, race, ethnicity, disability, or sexual orientation

21. My athletic or physical skills have improved
22. My awareness of my body has increased
23. My ability to challenge myself physically has increased
24. My physical risk-taking has increased
25. My appreciation for what my physical body is capable of has increased
26. My confidence in my physical self has increased
27. My coordination has improved
28. My capacity to express myself physically has grown

29. I enjoy WARE and I have fun when I am involved
30. WARE is an important part of who I am
31. I really focus on WARE when I’m doing it
32. I think about WARE even when I’m not doing it
33. Participating in WARE helps give my life meaning and purpose
34. WARE helps me cope with university life
35. WARE connects me to other people
36. WARE helps me connect to something greater than myself
37. I value this kind of participatory arts experience in everyday life
38. (optional) My name________________________________
39. (optional) Year/Program at Carleton____________________
Appendix B: WARE Audio interview questions

Background:

1. If you’re comfortable sharing this information, what is your gender, age, cultural background?
2. Are you a student at Carleton? If so, what year and degree program are you in?
3. If you are not a student at Carleton, describe how you came to be involved in WARE?
4. How long have you been involved in WARE?
5. Have you had any informal musical experience? If so, please describe it.
6. Have you had any formal musical training? If so, please describe it.

Interview questions:

1. Can you please describe your artistic experience in WARE? Can you comment on the musical and expressive skills you feel you have developed? What musical roles did you have in the ensemble?
2. Can you please describe your personal experience in WARE? How did that experience affect you physically? Emotionally?
3. Were there any benefits to your health and well-being during your participation or afterwards, and if so, what were they? (stress levels, anxiety, emotions, attitude towards other parts of your life etc.). Were there any memorable experiences with this ensemble that impacted on you, and if so, what were they? What kind of impact did they have on you?
4. Were there any benefits to your physical health during your participation or afterwards, and if so, what were they? (fitness level, appearance, better ease with everyday physical tasks, etc)
5. Did you make any changes to your life as a result of being involved in WARE? If so, what kinds of changes? Can you give an example?
6. What attracted you to join the ensemble in the first place? Did you have musical goals? Academic requirements? Did the social and interactive nature of the ensemble draw you to it?
7. Were there any issues that prevented your full participation in the group, either when you first joined or during the time you were with the group?
8. Would you join WARE again (or similar musical group)?
Appendix C: Former WARE members email interview questions

1. Can you please start by telling me your name and background*?

2. When and under what circumstances did you participate in a Ghanaian drumming/dancing/singing ensemble?

3. Can you tell me a bit about your artistic experience in any Ghanaian-style ensembles?

4. Can you tell me a bit about your personal experience in any Ghanaian-style ensembles?

5. Were there any benefits to your health and well-being during your participation or afterwards?

6. Is there anything else that you think is important for me to know?

*in terms of background, this could be anything you feel is relevant…your musical background, family background, experience in ensembles etc.