Disseminating Knowledge with Dance

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By

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ABSTRACT

The Delphi method was used to investigate the use of dance and movement in knowledge dissemination by systematically accessing and synthesizing the knowledge of researchers and dancers who have used this particular artistic method. The expert panel included three researchers (two also identifying as dancers) who had used dance as a tool to disseminate research findings in formal research. Two rounds of online Delphi questionnaires were used to generate data. The study's findings included several categories of consensus reached amongst participants: (a) using dance for the purposes of knowledge dissemination is complex, time-consuming, and requires expertise, (b) dance is a useful and valid means for disseminating research findings both in qualitative and quantitative projects, (c) movement and dance are common to all humans, provide a common base or means for interaction, and provide a legitimate way of knowing, expressing knowledge and concepts either differently or sometimes better than language, (d) dance is not appropriate to use in all research projects and there is no singular procedure, (e) dance evokes emotional, visceral, and embodied responses that cannot be predicted, and (f) researchers ethical care and responsibility exceeds typical considerations and extends to others members such as the dancers and audience members. Differences of opinion arose about researchers' ethical responsibilities associated with level of care for audience members when using dance as a knowledge dissemination strategy. The current study's findings extend knowledge and understanding about the use of dance in research dissemination, and have implications for future research and research practice.

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DEDICATION

"We delight in the beauty of the butterfly, but rarely admit the changes it has gone through to

achieve that beauty" ~ Maya Angelou

This thesis is dedicated to my inspiring sister friend. Kim thank you for being by my side

through it all and teaching me that one's past does not define the legacy of one's life. I would

not be where I am today without you. I love you Kim.

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CHAPTER 1: INTRODUCTION

The arts have always played a special part in my life. I grew up singing and dancing and even had childhood dreams of one day becoming a Broadway musical star. I invested many years into formal dance and voice training and competed across Saskatchewan in both these areas. Dance and music became an outlet for me to express emotions and tell a story through the art of movement and voice. The power of the arts was evident to me as I recognized its ability to captivate an audience in an artistic experience. Movement and music has continuously helped me to reconnect with myself, express emotions, and create meaning in my life. I have learned many valuable insights throughout my participation in the arts not only of its importance but also of its ability to assist me in personal growth. This thesis research idea was sparked in April 2011 by my participation in the Creative Methodologies workshop organized by the Creative Practices for People with Cancer (CP4PC) research team funded by the Saskatchewan Health Research Foundation. Two dancers and dance choreographers from Toronto attended the workshop and shared their experiences on disseminating research findings with dance. The dancers had recently collaborated with health researcher Katherine Boydell to create a dance performance that represented and disseminated Boydell's research findings on early psychosis. I was both intrigued and impressed by this new area of research and felt drawn to personally explore this area of research following this experience. Overall it has been both meaningful and exciting for me to connect my personal interests in the arts with my academic research in the present study.

The Present Study

My academic research stems from my personal interests in the arts. I am enthusiastic towards the growing body of research integrating the arts into the research process. Over the past decade arts research has developed significantly and is progressively becoming recognized

as a credible and legitimate way of conducting research and representing knowledge in many academic disciplines. Applying artistic formats such as theater, dance, photos, music, and poetry are said to inform and enrich the research process (Boydell, Gladstone, Volpe, Allemang, & Stasiulis, 2012) and can significantly contribute to the generation of new understandings, not only of artistic practice, but also towards knowledge and society in general (Barbour, 2006). Jones (2006) argued that by incorporating the arts into research it is then possible to evoke emotional responses and to construct alternative forms of representation that encourage conversation and shared storytelling. This is important aspect of research since it "engages audiences beyond the rational and analytical surface of conventional publications, to capture the complete spectrum of human needs (Lapum, Ruttonsha, Church,Yau, & David, 2011, p. 102).

The arts are still a rather novel topic in research that is being explored by researchers representing different fields, especially applied disciplines like health and education. The current state of the literature involves a broad area of research and the interchangeable terminology, concepts, methods, and methodologies are challenging to navigate and understand. For instance there are multiple forms of research that stem from the term arts research. The list is ongoing and consists of various types of arts research such as arts-based research, arts-informed research, arts-based inquiry, arts-related research, and arts-based educational research--all of which incorporate some artistic form within the research process. To add to the complicated state of arts research, there is also no agreement about what qualifies a study as arts research. Based on the review completed for this present study, it seemed like as long as there was some kind of art form used within the research process then an investigation was deemed as arts research. Some researchers follow a more structured and defined direction with their research and described their study as arts-based research using for example Knowles and Cole's definition that arts-based

research "refers to the use of any art form (of combinations thereof) at any point in the research process" (as cited in Boydell, Gladstone, Volpe, Allemang, & Stasiulis, 2012, p. 3). However, for the most part many studies are vague and the research is not identified as arts research or arts-based research.

There seems to be two main purposes for which the arts are used in research: knowledge production and knowledge dissemination. Knowledge production refers to using artistic methods to collect or generate data to learn about a phenomena or experience (Fraser & Sayah, 2011). This term is used interchangeably with other terms such as knowledge generation and knowledge creation. In contrast, knowledge dissemination refers to a specific and purposeful approach to sharing research evidence with knowledge users (CIHR, 2009). The majority of research has utilized the arts for the purpose of knowledge production with comparatively few studies using the arts for the intent of knowledge dissemination. Using the arts in knowledge dissemination is an area where future development is needed. Thus this present study was specifically focused on knowledge dissemination.

A review of the current research literature revealed that some artistic forms are used more commonly for knowledge dissemination than others. For example, theater is the most prominent art form identified as an effective artistic medium to disseminate knowledge (Colantonio, Kontos, Gilbert, Rossiter, Gray, & Keightley, 2008; Rossiter, Gray, & Kontos, 2008; Stuttaford, Bryanston, Hundt, Connor, Thorogood & Tollman, 2006). Following theater, other art forms such as photographs, drawings, poetry, and music have also been used as a tool for disseminating knowledge (Dell, 2009; Lapum, Ruttonsha, Church,Yau, & David, 2011; Poindexter, 2002;). There have been fewer references to dance as a medium for knowledge dissemination (Cancienne & Snowber, 2003), which suggests a gap in the literature. The use of dance as

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therapy is well documented, and dance/movement therapy (D/MT) has been used for many years as an alternative to counselling (Brown, 2010; Goodgame, 2007). Recent research identifies phenomenological evidence (Mills & Daniluk, 2002) and possible neurological explanations (McGarry & Russo, 2011), which recognize unique therapeutic features of dance. Although the suitability of dance for the purposes of knowledge dissemination and researchers has been demonstrated by researchers such as Carl Bagley and Mary Beth Cancienne (2001), Pirkko Markula (2006), and Katherine Boydell (2011), it is evident within the literature that dance is the least used art form for knowledge dissemination. Thus the present study addressed this gap in the literature by systematically accessing and synthesizing the knowledge of researchers and dancers who have used this particular artistic method. This research is important and significant because it addresses the lack of research regarding the use of dance to disseminate research. It also is the first study to bring together and solidify this specific knowledge from researchers and dancers about using dance as a means to disseminate research findings. Therefore the current study's purpose was to investigate the use of dance and movement in research dissemination. The guiding questions included: (a) why use dance to disseminate knowledge, (b) when is it appropriate to use dance, and (c) how do researchers and dancers go about using dance in research for purposes of knowledge dissemination?

Organization of Thesis

The next four chapters include a review of pertinent literature (Chapter 2), an explanation of the research methodology (Chapter 3), followed by the research findings (Chapter 4), and a discussion of the findings (Chapter 5).

Important Terms

The following key terms appear throughout the document and are defined as follows:

Arts: "The various branches of creative activity such as painting, music, literature, and dance" (Oxford Dictionary Online, 2013)

Arts-Based Research: "Use of any art form (or combinations thereof) at any point in the research process" (Knowles & Cole, 2008 as cited in Boydell et al., 2012, p. 3).

Dance: An "art form in which human movement becomes the medium for sensing, understanding, and communicating ideas, feelings, and experiences." (Minneapolis Public Schools, n.d.)

Delphi Method: A structured repetitious group communication process in which opinions and insight on a particular topic are collected and synthesized using a series of questionnaires interspersed with feedback (Skulmoski, Hartman, & Krahn, 2007).

Knowledge Translation: "A dynamic and iterative process that includes syntheses, dissemination, exchange, and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system" (CIHR, 2009, para. 1).

Knowledge Dissemination: Activities typically occurring at the end of the research process (following data analysis and generation of findings), which aim to make findings accessible and useable (CIHR, 2009).

Knowledge Production: Research methods used to "generate or collect data to learn about phenomena or experience" (Fraser & Sayah, 2011, p. 127).

CHAPTER 2: LITERATURE REVIEW

The following chapter introduces the arts and overviews the arts in research, and the purposes art forms serve within research. The literature reviewed distinguishes between research related to knowledge production (in the areas of photography, drawings, and poetry) and research related to knowledge dissemination (in the areas of theatre, photography, poetry, music, and dance). The chapter concludes with a summary and statement of the research question.

The Arts in Research

The arts have been embraced, celebrated, and recognized as a positive contribution in most societies (Fraser & Sayah, 2011). For centuries the arts have been valued and understood as one of the most powerful means of expression and communication (Wikstrom, 2000). The definition of the arts is an existing grey area where the presence of a concrete definition is absent. Many people from diverse backgrounds, cultures, academic disciplines and so on have various definitions of what constitutes the arts. In this study the arts is used to refer to "the various branches of creative activity such as painting, music, literature, and dance" ("Oxford Dictionaries," n.d.).

Background

There is a well-documented area of research recognizing the arts for its therapeutic purposes (Mazza, 2003; Wikstrom, 2000). More recently artistic forms such as theater, dance, photos, music, and poetry are increasingly being used to generate data, represent data, and disseminate findings (Woo, 2008). The emerging body of literature utilizing creative practices in research suggests that some of the qualities associated with aesthetic media that make it therapeutically effective (e.g., catalyst for self-expression, ability to uncover and release emotions, thoughts and feelings), also make it effective in the research process (e.g., data

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generation, knowledge dissemination, Thom, 2010). Jones (2006) argued that by integrating art forms into the research process it is then possible to evoke emotional responses and to construct alternative forms of representation that encourage conversation and shared storytelling. This is important aspect of research since it "engages audiences beyond the rational and analytical surface of conventional publications, to capture the complete spectrum of human needs (Lapum, Ruttonsha, Church,Yau, & David, 2011, p. 102). Using the arts can be especially useful to investigate sensitive research topics and to deliver findings that are not easily articulated or expressible in words (Fraser & Sayah, 2011).   For instance, poetry has been utilized for many years to express intimate feelings of love, anger, grief, and pride (Fraser & Sayah, 2011). Additionally film and theater have been used to disseminate insightful and evocative messages regarding intimate topics of illness such as cancer and the social phenomenon of bullying (Fraser & Sayah, 2011). Applying these artistic formats are said to inform and enrich the research process by encouraging individuals to connect with research on a personal and emotional level (Boydell, Gladstone, Volpe, Allemang, & Stasiulis, 2012).

The emergence of arts research over the past decade has evolved and currently the arts have been adopted into many disciplines across the academy. The field of education was the first to embrace arts research. In the 1970s, educational researchers began using art critics and the practices of artists to conduct educational research (e.g., Eisner, 1976; Vallance, 1977). As educational researchers were introduced to aesthetics and artistic forms of educational inquiry, by the 1990s arts research in education had evolved to include narrative writing, autobiography, dance and movement, theatre, visual arts, photography, music, poetry, and many others (Sinner, Leggo, Irwin, Gouzouasis, & Grauer, 2006). Developing from the work of Canadian and American scholars such as Gary Knowles, Celeste Snowber,Cynthia Chambers, John Dewey,

Thomas Barone, Rishma Dunlop, Elliot Eisner, Ardra Cole, Susan Finley, Maxine Greene, Claudia Mitchell, Lorri Neilsen, Joe Norris, Jane Piirto, and Sandra Weber, arts research continues to grow in the field of education (Sinner et al., 2006). Arts researchers in education argue that the creative arts are a mode of representation and inquiry that provide perspectives for making decisions regarding policy, pedagogical theory, and practice (Sinner et al., 2006). The evolution of arts research in education continues and has broadened across many other academic disciplines. For example, arts research in the area of health is emerging as a new approach for social inquiry and a beneficial direction for innovation in qualitative research (Boydell, 2011; Kontos & Naglie, 2007). The integration of the arts into health research occurred when qualitative research broadened and researchers were impelled to find and use methods of data collection that would produce important understandings and insights about specific concepts or phenomena such as the lived experiences of hospital patients undergoing chemotherapy (Oliffe & Bottorff, 2007). Health researchers began to use a variety of artistic forms either alone or in combination with other traditional methods of data collection (e.g., interviews, focus groups, Harper, 2002). Currently many approaches to using the arts in health research remain immature (Fraser & Sayah, 2011). However this new field is continuously evolving into a legitimate and respected area of research.

The Current State of Arts Research

The novelty of arts research is reflected in the current state and structure of the literature. Attempting to make sense of the interchangeable terminology, concepts, methods, and methodologies can be a confusing and challenging process. For example there are multiple forms of research that stem from the term arts research. The list is ongoing and consists of various types of arts research such as arts-based research, arts-informed research, arts-based

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inquiry, arts-related research, and arts-based educational research - all of which incorporate some artistic form within the research process.

Another complex factor in the literature is the extensive list of diverse artistic methods used within arts research and the tendency for every academic discipline to coin its own terminology. On one hand there are standard and generally well known arts methods (e.g., photography, drawing, poetry, theatre); on the other hand there are artistic methods not commonly known that have originated from various academic disciplines (e.g. photovoice, photo elicitation, ethnodrama). At the same time many researchers are adopting other arts methods from different academic disciplines. Even further many studies also combine other research methods (e.g., interviews, observation, focus groups) with arts methods which increases the complexity of the various methods in service.

To add to the complicated state of arts research, there is no agreement about what qualifies a study as arts research. Based on the review completed for the present study, it seemed like as long as there was some kind of art form used within the research process then an investigation was deemed arts research. Some researchers follow a more structured and defined direction with their research and define their study as arts-based research according to a specific definition such as Knowles and Cole's statement that arts-based research "refers to the use of any art form (of combinations thereof) at any point in the research process" (as cited in Boydell et al., 2012, p. 3). However, for the most part many studies are vague and the research is not identified as arts research or arts-based research.

Knowledge Production and Knowledge Dissemination

There seems to be two main purposes for which the arts are used in research: knowledge production or knowledge translation/dissemination. Both the literature reviewed for the present

study, and Fraser and Sayah's (2011) arts-based methods health review suggest that the most common intention is using the arts for the purpose of knowledge production.

Knowledge Production

Knowledge production refers to artistic methods that are used to collect or generate data to learn about phenomena or experience (Fraser & Sayah, 2011). This term is used interchangeably with other terms such as *knowledge generation* and *knowledge creation*. Studies that use the arts for knowledge production use the arts most commonly as a tool for generating data (Fraser & Sayah, 2011). The most frequently used art forms in these studies are the visual arts, such as photographs and drawing (Guillemin, 2004; Hanna, Jacobs & Guthrie, 1995; Locsin, Barnard, Matua & Bongomin, 2003; Nowicka-Sauer, 2007; Oliff & Bottorff, 2007; Oliff, Bottoroff, Kelly & Halpin, 2008; Pelander, Lehtonen & Leino-Kilpi, 2007). Other common data generating techniques include photography and poetry (Fraser & Sayah, 2011).

Photography. As mentioned previously the majority of arts research utilizes the arts as a tool for knowledge production (generating data). When searching the literature the most widely used art genre, for the purposes of knowledge production, is photography (Boydell et al., 2012; Fraser & Sayah, 2011). Photography has been used in multiple ways to create and generate data. For example, Frith and Harcourt (2007) had women participants who were being treated with chemotherapy take photographs that captured their experiences during the course of their treatment. The women were then interviewed after completing treatment and discussed the photographs that they had taken as well as reflected on the process. Similarly, Radley and Taylor (2003) had hospital patients take photographs of their ward, its spaces and objects, and then interviewed them about these images in an attempt to discover which aspects of the wards physical setting played a role in patients' recovery. Photographs were also used in Oliffe,

Bottorff, Kelly, and Halpin's (2007) study to capture men's experiences of smoking and fatherhood. Photographs were taken by the male participants that focused specifically on their personal experiences regarding smoking in fatherhood. Following this the researchers then interviewed the participants and discussed their photographs. In order to explore the everyday issues, challenges, struggles, and needs of elderly women, researchers had four elderly women take photographs of their everyday lives (LeClerc, Wells, Craig, & Wilson, 2002). The photographs were then used as a tool to deepen and enrich the post interviews with the women participants.

Drawing. Drawing is another popular art form used to generate data and figuring prominently throughout the arts-based research literature. Such examples include; Rollins' (2005) study which examined the use of drawing to enhance communication of children's experiences with cancer. Pelander, Lehtonen, and Leino-Kilpi (2007) had hospitalized children create drawings of their ideal hospital to gather information about how children perceive the quality of care that they receive in hospitals. Nowicka-Sauer (2007) had patients diagnosed with lupus construct drawings of their perceptions of the disease lupus. Analysis of the disease pictures uncovered many dimensions of patients' perspectives of living with the disease.

Poetry. Poetry is another art genre used for the intent of knowledge production but with relatively little use. Kidd and Tusaie (2004) had nursing students write original poems about their clinical experience in mental health nursing. An analysis of the poems aided to expand the instructors' knowledge of the student experience. Parallel to this, Furman, Collins, Langer, and Bruce (2006) explored the use of practitioner poetry as a tool for facilitating and understanding the lived experiences of practitioners' experiences with patients suffering from mental illness.

Knowledge Dissemination

The other purpose for which the arts are used within research is for knowledge

translation, also referred to as knowledge dissemination. This is a growing area in arts research.

Knowledge translation (also called knowledge exchange, knowledge utilization, research

transfer, and research utilization) was first introduced in the 1950's as a one-way communication

of information from researchers to policy makers resulting in specific policy decisions

(Jacobson, Butterill & Goering, 2003). Health researchers, in particular, have emphasized the

importance of this aspect of research, and knowledge translation (KT) is an activity promoted by

the Canadian Institutes of Health Research (CIHR). CIHR (2009) defined KT as "a dynamic

and iterative process that includes syntheses, dissemination, exchange, and ethically-sound

application of knowledge to improve the health of Canadians, provide more effective health

services and products and strengthen the health care system" (para. 1). *Dissemination* aids

knowledge translation to occur and refers to a more specific and purposeful approach to sharing

research evidence with knowledge users (CIHR, 2009). CIHR (2009) described dissemination as

"identifying the appropriate audience and tailoring the message and medium to the audience"

(para. 3). This frequently involves activities such as developing summaries for stakeholders,

offering educational sessions for knowledge users, engaging knowledge users in developing

dissemination activities, creating tools and engaging the media (CIHR, 2009).

Knowledge dissemination refers to activities typically occurring at the end of the research

process (following data analysis and generation of findings), which aim to make findings

accessible and useable (CIHR, 2009). Outside of health education researchers have also

embraced a more complex understanding of *knowledge dissemination*. A 1993 review

(Hutcheson & Huberman) noted that knowledge dissemination utilized for educational purposes

involves "the transfer of knowledge within and across settings, with the expectation that the

knowledge will be 'used' conceptually (as learning, enlightenment, or the acquisition of new perspectives or attitudes) or instrumentally, (in the form of modified or new practices)" (p. 2). The report also acknowledged the need of different strategies for different purposes.

Theater. Performance arts include theater, music, and dance, all of which are performed before an audience. The most widely used performance art form in research is theater (Boydell et al., 2012; Fraser & Sayah, 2011). Theater has been broadly researched and used as an effective artistic medium to disseminate knowledge, transcend the boundaries between the arts and sciences, and broaden horizons to new areas and types of research regarding how we come to know, interpret and make sense of phenomena under examination (Rossiter, Gray,Kontos, Keightley, & Colantonio, 2008). Colantonio, Kontos, Gilbert, Rossiter, Gray, and Keightley (2008) created and evaluated a research-based drama production for the purpose of transferring knowledge about traumatic brain injury to health care professionals, decision makers, and managers. Results determined theater to be a highly effective and engaging method of knowledge dissemination, especially for complex material that involves emotional experiences and interpersonal relationships. Parallel to this, in another paper by the same group of researchers Rossiter, Kontos, Colantonio, Gilbert, Gray, and Keightley (2008) stated that theater utilized as a method of knowledge dissemination in both the fields of education and health uniquely engages audiences on a cognitive and emotional level through verbal, non-verbal, and physical forms of communication. Theater also has the potential to enhance audiences understanding of complex interpersonal, emotional, and psychological dynamics that arise in medical practice, which are often difficult to fully convey in more traditional forms of dissemination such as scientific articles and reports.

Further research has validated theater to be a successful form of knowledge dissemination by exploring how knowledge transfer can be maximized through theater. Studies have found that using theatre as a means of engaging an audience through a participatory approach, modifying the performance site, and building support structures for the audience and actors serve to maximize theatre's knowledge transfer and dissemination, which overall validates the effectiveness of theater (Mason, 2008; Rossiter et al., 2008; Stuttaford, Bryanston, Hundt, Connor, Thorogood & Tollman, 2006).

Photography. Visual representations such as photography and drawings are also recognized as a tool for communicating knowledge, ideas, emotions, and human experiences (Hanna, Jacobs, & Guthrie, 1995). Photographs provide visual insights and knowledge about human conditions and have been recognized as useful tool in qualitative research (Lapum et al., 2011; LeClerc et al., 2002). Artistic formats such as photography can be utilized to describe experiences to audiences that they may not have personally encountered (Lapum et al. 2011). These descriptions may include realistic representations that relay diverse perspectives, symbols that hint at underlying meanings or tensions, and abstract impressions that express the atmosphere and mood (Lapum et al. 2011). The literature review completed in the present study revealed that the studies utilizing photography for the purposes of knowledge dissemination were typically used in conjunction with other art forms. For example Lapum et al. (2011) created an arts instillation to disseminate their research findings of patients' narratives of open heart surgery. "The 7,024th Patient" project was intended to immerse audiences in patients' experiences, such that they intimately feel the emotional, psychosocial, and embodied effects of heart surgery. Patients' stories were aesthetically translated into an installation of photography and poetry that was arranged as a winding, labryinth-like path that allowed viewers to experience

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a sense of emotional immediacy and empathy. Similarly Mcintyre and Cole (2008) gathered

data from family and caregivers about their experiences of caring for a loved one with

Alzheimer's disease. A spoken-word performance called *Love Stories* was created from the data

collected and performed to audiences. Alongside this they launched a public exhibit where they

displayed autobiographical images of caregiving and Alzheimer's disease. The researchers aimed

to communicate and educate about caregiving and Alzheimer's disease as well for the audience

to experience and create meaning from the artistic representation of their research.

   Poetry. Literary arts have also been used in research as a tool to disseminate knowledge.

The most common literary art form is poetry (Fraser & Sayah, 2011). Poetry is a unique means

for human expression, can emerge from lived experience, and can serve as a way of knowing

(Hunter, 2002). It has the capacity to evoke emotions for the reader (Poindexter, 2002), and

poetry can powerfully document the depth and richness of a phenomenon (Furman, 2004). The

literature review conducted for the proposed study found that poetry has mainly been used for

the purpose of knowledge production in research (Furman et al., 2006; Kidd & Tusaie, 2004).

However there are a few studies that have used poetry as a tool for knowledge dissemination.

For instance Poindexter (2002) conducted qualitative interviews with an HIV infected caregiver

regarding the participant's experience with HIV stigma. Poindexter derived poems from the

interview transcripts to portray the experiences, beliefs, and emotions of her participants.

Through this process she successfully portrayed the essence of her interviews and enabled

readers to experience a deep sense of resonance and empathy. Langer and Funnan (2004)

explored the experience of a Native American woman coming to terms with her bi-racial identity

and issues related to assimilation through the use of poetry. Working from qualitative interview

transcripts, the researchers constructed a poem that utilizes the participant's exact words. Then

two interpretive poems were created by the researchers as an attempt to capturing the essence of the subject's experience. Through poetry, they were able to deeply capture the "lived experience" of their research participant. Lastly Furman (2004) examined the use of poetry in documenting social development realities in Latin America. From his observations and field notes he created poems to authentically represent his data and to develop increased insight, empathy, and compassion amongst readers.

Music. Being a performance art, music has been primarily used for knowledge dissemination within research however little research was found that exclusively focused on music as the medium to disseminate knowledge. Rather, most research incorporated music with other art forms such as theater and dance. A few exceptions were Dell's (2009) study on drug addictions, Kooij's (2009) research about recovery themes in the songwriting of adults living with mental illness, and Beer's (2013) study on the role of spirituality in the work lives of higher education administrative leaders.   Dell led a research team who translated findings into a song and music video, "From Stilettos to Moccasins." The music provided a dissemination strategy to communicate women's healing stories to diverse audiences, including through YouTube (see http://www.youtube.com/watch?v=1QRb8wA2iHs). The research team and women participants who shared their stories in the study worked collaboratively to create the song and music video. The research team worked with outside organizations and a variety of communication methods to disseminate the song and video. It was reported that the public and media response was very positive, and participants, viewers and research team members were empowered by the process. Kooij (2009) used songwriting to produce a song that described and modelled the themes generated in a hermeneutic phenomenological investigation of the illness narratives of adults living with serious mental illnesses. The song was created from various songs written by music

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therapy patients living with serious mental illness. The message that the participants hoped to

share about their lived experience of mental illness was brought together in this song. Kooij

(2009) concluded that "co-writing songs as a music therapist is a powerful experience promoting

expression, communication, and building connection" (p. 55).

Beer (2013) also wrote an article about her experience using music to represent and

disseminate her qualitative research findings. She wrote that in her doctoral dissertation project

she conducted a series of interviews to explore the role of spirituality in the work lives of higher

education administrative leaders. Beer voiced that the stories and insights gathered profoundly

affected her, and she felt a great responsibility to accurately and respectfully transform their

words into representations in a way that did justice to the level of intimacy they shared in their

interviews. Beer being a music therapist decided to use music to represent her participants.

Therefore she composed a personal song for each participant. Following this she reported that

every one of the participants acknowledged that their personal song she had composed did

indeed capture elements of who they are and how they are in the world. She concluded that

music was "able to capture what words cannot, offering the qualitative research world a natural,

challenging, and satisfying expressive form for data to sound and be heard within" (p. 10).

Multiple artistic forms. Innovative approaches to disseminate research findings are

becoming increasingly common and some researchers have been so adventurous to use multiple

artistic approaches to communicate research findings. Lafrenière and Cox (2012) compared two

methods for disseminating findings to various audiences: the café scientifique and the artistic

performance. The café scientifique was organized in a traditional format where three panelists

each offered a short presentation without visual aids on their perspectives on being a human

subject in health research. In contrast the artistic performance encompassed four artistic forms -

poetry, drama, song, and visual arts. The artistic performance was based on the same topic as the café scientifique and was created from selected portions of transcripts from the "Centering the Human Subject" study (p. 192). The relevant themes obtained from the transcripts were represented in the performance. Results based on a survey indicated that the artistic performance is more effective than the café scientifique in communicating research findings. The artistic performance generated more emotions among audience members, provoked more questions on the topic discussed, and a greater number of individuals were influenced to alter their initial understanding and opinion of an issue. Congruent with this, Bosompra (2008) used drama and songs to educate people in Ghana about AIDS. The impact of the artistic performance was evaluated with focus groups and findings confirmed that the drama and songs about AIDS increased knowledge about AIDS and promoted positive attitudes towards AIDS. The songs could also serve as important cues to remind listeners to adopt safer sexual behaviors.

Different art forms have also been integrated within the education system as a tool to teach and disseminate knowledge. The use of the arts in education is progressively recognized as a way to draw attention to the humanities and creativity in practice (Cox, Lafrenière, Brett-MacLean, Collie, Cooley, Dunbracke & Frager, 2010). For instance music, dance, drama, and fine arts have been used to teach and make chemistry accessible to everybody (Lerman, 2003). Lerman (2003) stated:

> Most people are not interested in the concept of the ionic bond, but when presented as a love story between Sodium and Chlorine like Shakespeare's Romeo and Juliet, people enjoy learning about the bonding relationship. In addition, the drama students who write and act out the script remember the concept far longer than would be expected through

more conventional teaching methods. The same is true for students who wrote and acted

in "The Bondfather", and for the students who danced "The Three States of Matter. (p. 1)

These methods have helped students and the public understand chemistry through artistic

formats.

Dance. There are fewer references to dance as knowledge dissemination (Cancienne &

Snowber, 2003). The use of dance as therapy is well documented, and dance/movement therapy

(D/MT) has been used for many years as an alternative to counselling (Brown, 2010; Goodgame,

2007). Recent research identifies phenomenological evidence (Mills & Daniluk, 2002) and

possible neurological explanations (McGarry & Russo, 2011), which recognize unique

therapeutic features of dance. Researchers are now beginning to identify elements of dance that

suit it to the purposes of knowledge dissemination as a unique means of communication. Toncy

(2008) described dance is effective as a tool for expression and conveying emotions, and

Cancienne and Snowber (2003) argued convincingly that the art of dance, choreographed dances,

and everyday movement provide a system of meaningful motions of the body that can

communicate meaningful expressions of knowledge.

Dance is the unique art of motion that allows new dimensions of a phenomenon to

become available (Blumenfeld-Jones, 1995). Even further, it is the art of attending to motion as

meaning in and of itself, not outside itself (Blumenfeld-Jones, 1995). The motion derived does

not arise from standardized dance motions. Rather the motion is reflective of the topic under

study as understood by the artist. The dancer/choreographer is focussed on the different

meanings of motion as organized in time and space and shape (Blumenfeld-Jones, 1995).

Blumenfeld-Jones (1998) stated that a dance person concentrates on the body not only as an

object of inquiry and gaze, but also as a mode of inquiry itself, working from inside the body.

He defined "inside the body" in dance terms as: "the person functions from an interior working of bodily material for the purpose of understanding both the movement being performed and the meaning of the movement within the context of the "topic" of the dance" (p. 176). Blumenfeld-Jones (1995) stated that, not all kinds of research would be well reflected upon by dance. Nonetheless he argued that dance represents an idea, topic, or abstract symbolic narrative which can be taken as a meaningful action and treated as text. The rise and fall of bodily rhythm in a space characterized in shape and motion is the reflection upon the idea. The audience becomes one with the dance text to the extent that they are willing to participate in the interpretation of the movement.

There are numerous advantages of using dance in research, including accessibility. Fraser (2008) noted that while research results are predominantly communicated through academic journals and conferences, dance is accessible to everyone. And possibly more important is the fact that subjective experiences are not typically included in the reporting of research results (Fraser, 2008). Dance on the other hand has been used as a tool to represent subjective experiences within research. For instance Boydell (2011) reported that she chose dance as the medium in her research as she believed in its power to communicate the subjective experience. She brought scientists and artists together to create a dance performance representing her research on early psychosis. Dance was used as a communicative tool for representing data, creating an opportunity for people to become aware of psychosis in an accessible and creative manner, and to also provoke and possibly disrupt the general assumptions individuals hold about mental health issues and psychosis in particular. The research and artistic teams worked together across very different disciplines to communicate research findings through dance. The dance entitled *Hearing Voices* has been presented to various audiences

including academics, students, service providers, educators, policy makers, dance choreographers, and the general public. Audience dialogue and engagement were elicited by in-theatre observation of audience responses, regulated post-performance audience discussions, audience feedback through post-it notes, and researcher field notes. Analysis of this data suggested that dance is an effective way to disseminate empirical research findings and it enhances awareness and understanding of the phenomena being studied. Dance also emphasizes the importance of the aesthetic qualities and visceral impact of the performance. The research team in this study believed that the dance performance allowed them to address the visceral, emotional, and visual aspects of their research which are frequently invisible in traditional academia.

Another advantage held by dance is its ability to create an embodied experience. Boydell (2011) stated that in the process of creating the dance *Hearing Voices* many discussions arose regarding the ability of dance to explore knowledge physically, mentally, and emotionally, allowing the audience to enter into the experience. Boydell linked the relevancy of embodiment to dance and states that embodied research suggests that knowledge has to do with lived experience and is based on the traditional phenomenological notion of the "lived body" and "lived experience". Thus embodiment is viewed as an "insightful and multidimensional means of linking body, movement, and force as embodied rhythms of how it is possible to be present, to live, to experience, to express and to understand individuals from many viewpoints and in particular contexts" (Bodell, 2011, p. 14). Dance serves as a tool for embodiment and allows both the dancer(s) and the audience to come to understand the phenomenon in a more intuitive and holistic way.

There has also been research documenting the process of using dance as a tool to disseminate research findings. For example, Markula (2006) documented her process of using a dance performance to represent and disseminate feminist research. She aimed to record this process through her own experiences of choreographing and performing a solo contemporary dance piece that embraced a feminist agenda of representing a positive feminine identity. Markula reported on the many challenges and benefits of using dance in research dissemination. She concluded that a dance performance has potential to succeed as a research presentation however researchers need to proceed cautiously by retaining a close connection to the audience's experiences and have a clear theoretical vision. Overall and despite some of the challenges Markula believed this to be a rewarding process.

The art of dance has proved useful in disseminating scientific ideas and values. For example, in the United States, Liz Lerman's Dance Exchange troupe explored the repercussions of knowledge of the human genome through its dance, *Ferocious Genome* (Jasny & Zahn, 2011). The medium of dance was used as a science delivery system, focusing on three topics: aging, ancestry, and perfection. Genetic scientists and researchers collaborated on the dance project and facilitated post dance discussions. Even further, social issues have also been examined through dance. For instance in 2011 the New Atlantic Ballet Theatre performed *Ghosts of Violence*. *Ghosts of Violence* represent stories on spousal abuse, which were transformed into the language of dance. This ballet production arose from the Fredericton-based Muriel McQueen Fergusson Foundation for Family Violence Research who asked the dance company to create a piece appropriate for a fundraiser for their *Silent Witness Project*. The artistic director Igor Dobrovolskiy stated that "the arts have the ability to make a difference and contribute to social change" (Citron, 2011). More recently, in 2013 the *Silent Survivor Project* premiered an

interpretive Traditional Dance representing the story of the Aboriginal Residential school experience and shining light on the dark parts of Canada's history. Following the dance performance a panel of Residential School survivors, and invited representatives were available to interact with the audience and answer questions. This event provided the opportunity to explore, acknowledge, and understand Residential School's impact on First Nations people and Canadian society in a holistic manner rather than traditional academic presentations oriented to cognitive intellectual ways of knowing ("Thunder Spirit Consulting," 2013).

Summary and Concluding Comments

The purpose of this chapter was to provide a review of the literature on arts research. The specific problem identified was the lack of research on using the art form of dance for the purpose of knowledge dissemination within research. In recent years only a few researchers have conducted studies that used dance to disseminate research findings, and this accumulating knowledge has yet to be systematically integrated. Therefore, the present study explored dance as a medium of knowledge dissemination by systematically accessing and synthesizing the knowledge of researchers and dancers who have used this particular artistic method. The guiding research questions were: (a) why use dance to disseminate knowledge, (b) when is it appropriate to use dance, and (c) how do researchers and dancers go about using dance in research for purposes of knowledge dissemination?

CHAPTER 3: METHODOLOGY

The following chapter describes the study's research methodology. The chapter begins with the rationale for the research approach. Next, the Delphi method is described in terms of participants, data collection, and data analysis. Lastly, evaluation criteria of trustworthiness and ethical considerations are discussed.

Qualitative Research

Qualitative research is essentially concerned with how the complexities of the social world are experienced, interpreted, and understood in a particular context and at a particular point in time (Bloomberg, 2007). The intent of qualitative research is to examine a social situation or interaction by allowing the researcher to enter the world of others and try to attain a holistic understanding (Bogdan & Biklen, 1998). Qualitative methodology prioritizes discovery and description, and objectives that generally concentrate on drawing out and interpreting the meaning of experience (Bogdan & Biklen, 1998). Bloomberg and Volpe (2008) stated that the key features associated with utilising qualitative research include: (a) comprehending the processes by which the actions and events take place, (b) cultivating contextual understanding, (c) facilitating interactions between participants and researcher, (d) adopting an interpretive position, and (e) sustaining design flexibility. The present study fulfilled all of these key features. The Delphi Method was used to gather rich data and gain a holistic understanding of the phenomenon under study, the use of dance in knowledge dissemination.

The Delphi Method

The original Delphi method was developed in the 1950s for military purposes by Norman Dalkey of the Research and Development Corporation (RAND), a non-profit global policy think tank initially created to provide research and analysis to the armed forces in the United States

(Linstone & Turoff, 1975). Dalkey stated that the project's purpose was "to solicit expert opinion to the selection, from the point of view of a Soviet strategic planner, of an optimal U.S. industrial target system and to the estimation of the number of A-bombs required to reduce the munitions output by a prescribed amount" (Dalkey & Helmer, 1963, p. 458). To complete this work, experts participated in repeated individual questioning through interview or questionnaire without direct interactions of the experts with one another (Dalkey & Helmer, 1963). At the end of the project the authors argued that the method was highly conducive to producing preliminary insights into a subject matter even though predictions obtained in the form of opinion consensus may be lacking in reliability.

Since then, the method has been used in many different contexts and commonly involves a repetitious process in which opinions of experts on a particular topic are collected and synthesized using a series of questionnaires interspersed with feedback (Skulmoski, Hartman, & Krahn, 2007). In consecutive rounds the participants complete the same questionnaire usually two or more times (Loyens, Maesschalck, & Bouckaert, 2011). After each round they receive feedback on their answers, both from the researcher and the other fellow participating experts (Loyens et al., 2011). The process stops when either a consensus is reached or when sufficient information has been exchanged (Skulmoski et al, 2007). The Delphi method is based on the assumption that shared intelligence amplifies individual judgement and captures the collective opinion of experts (Jones et al., 2000; Linstone & Turoff, 1975; Moore, 1987; Murry & Hammons, 1995). In general, the entire method is grounded on a structured process for collecting and distilling knowledge from a group of experts by means of a series of questionnaires blended with directed opinion feedback (Adler & Ziglio, 1996).

An important and unique characteristic of the Delphi method is the anonymity of the research participants (Loyens et al., 2011). Only the researcher(s) know the identity of the participants, and thus none of the participating experts know of each other (Loyens et al., 2011). Throughout the entire process the experts participate independently without meeting in person. They only receive anonymous feedback from other participating experts who after each round give comments about the contributions of other participants (Powell, 2003). The anonymity associated with the Delphi method is meant to allow participants to give their opinions freely without potential influences from other group members (Loyens et al., 2011). It provides them with the opportunity to formulate perhaps a different or opposite opinion from the ideas of authorities in the field (Loyens et al., 2011).

The flexibility of the Delphi method is illustrated by its prominent appearance in the research literature as well as its wide acceptance throughout the world in many industry sectors including health care, defense, business, education, information technology, transportation and engineering (Skulmoski et al, 2007) . A literature search was conducted on the Delphi method and it was found that this method has gained substantial acceptance across disciplines such as business (Czinkota & Ronkainen, 2005), government and military (Dalkey & Helmer, 1963), health sciences (De Villiers, De Villiers, & Kent, 2005), nursing (Jirwe, Gerrish, Keeney, & Azita, 2009), health care (Jones, Brown, & Volicer, 2000), criminal justice (Loyens, Maesschalck, & Bouckaert, 2011), education (Murry & Hammons, 1995), counselling psychology (Neimeywe & Diamond, 2001), and psychotherapy (Norcross & Hedges, 2002). The Delphi method is appropriate to use as a tool for judgment, decision-aiding or forecasting (Linstone & Turloff, 1975), and can be utilized when there is incomplete knowledge about a problem or phenomena (Adler & Ziglio, 1996). The method also can be applied to problems that

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could benefit from the subjective judgments of individuals on a collective basis (Adler & Ziglio, 1996) and to focus their collective knowledge on the problem at hand (Linstone & Turloff, 1975). Also, the Delphi is particularly useful where there is little or no published information on the subject under consideration (Loyens et al., 2011). Many researchers with various backgrounds use the Delphi method as it is a widely used and adaptable research method.

Types of the Delphi Method

There are many Delphi method techniques (e.g., decision Delphi and policy Delphi), all of which originate from the classical Delphi method (Zolingen & Klaassen, 2003). The classical Delphi collects data individually from experts in a number of rounds (Zolingen & Klaassen, 2003). The results of proceeding rounds are fed back to the respondents until stability in responses on a specific issue is reached through iteration. Rowe and Wright (1999) defined four key features that characterize the classical Delphi:

1. Anonymity of Delphi participants: allows the participants to freely express their opinions without undue social pressure to conform to others in the group. Decisions are evaluated on their merit, rather than those who have proposed the idea.

2. Iteration: allows the participants to refine their views in light of the progress of the group's work from round to round.

3. Controlled feedback: informs the participants of the other participants' perspectives, and provides the opportunity for Delphi participants to clarify or change their views.

4. Thematic and statistical gathering of group responses: allows for qualitative and quantitative analysis and interpretation of data (p. 354).

Although these traditional core features exist, the Delphi method has evolved to meet the needs of the given study. Some researchers, such as Rowe and Wright (1999) believe that only those studies which have the four characteristics should be classified as Delphi studies.

The present study used a classical Delphi method because although there is a growing body of research regarding the use of the arts for knowledge dissemination purposes in research, few studies were located that focused on dance as a medium for knowledge dissemination. As mentioned earlier, the Delphi method is particularly useful where there is little or no published information on the subject under consideration (Loyens et al., 2011), and it can be utilized when there is incomplete knowledge about a problem or phenomena (Adler & Ziglio, 1996). Such is the case with the use of dance in the research process. Alexander and Serfass (1999) stated that people who are most likely to have knowledge about a subject are those people who have expert knowledge. Thus this method was chosen because it gathers a group of experts (researchers and dancers themselves) who have expert opinions in addressing the unique characteristics of dance and its place in research. It was also a method that did not require a large time commitment from participants and it was a cost effective way to conduct research.

Procedures

Recruitment and Participant Selection

A critical component of Delphi research is the selection of the research participants since it is their specific opinions upon which the output of the Delphi is based (Ashton 1986; Bolger & Wright 1994; Parente, Anderson, Myers, & O'Brien, 1994; Okoli & Pawlowski, 2004). Adler and Ziglio (1996) defined four requirements which determine expertise of participants:

(a) knowledge and experience with the issues under investigation;

(b) capacity and willingness to participate;

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(c) sufficient time to participate in the Delphi; and,

(d) effective communication skills.

A purposive sample was necessary since specific opinions were sought and the people selected were not to represent the general population, but rather, to have an expert ability to answer the research questions (Fink & Kosecoff 1985; Skulmoski et al., 2007). Thus the participants were selected by using purposeful sampling, which involved selecting participants based on specific criteria:

a) researchers who have used dance in any aspect of the research process

b) dancers who have collaborated with researchers in some aspect of the research process

Participants were then identified using the following criteria:

a) have been a part of research which has used dance in any aspect of the research process (i.e., arts researcher or dancer);

b) be willing to share their experiences via e-mail with the researcher;

c) be willing for the researcher to share their responses with other panel members;

c) be comfortable with computers (i.e., typing and able to interact via e-mail) and has access to a computer;

d) be willing to complete as many Delphi rounds as needed (at least 2, no more than 4; and

e) be fluent in English.

A snowball technique was also used to recruit participants. As such, the potential participants were asked to pass on the invitation to other potential participants that they know who would meet the inclusion criteria. There were 15 potential participants identified through searching websites, articles, an academic conference, and recommendations by other potential participants. Out of the 15 potential participants: 2 did not fit the study's participant criteria, 1 participant

declined because she/he were too busy, 2 responded and expressed interest but disengaged after being informed about the details of the study, and 6 did not respond to the study's invitation to participate.

The sample size varies in Delphi studies from 3 to 171 experts (Skulmoski et al., 2007). In this study initially 4 participants were recruited. One participant dropped out during the Round One Delphi questionnaire and did not contribute any data thus leaving the study with 3 participants. The participants were sent an invitation to participate in the Delphi study via e-mail (See Appendix A). The invitation included a brief description of the Delphi study and the criteria to participate. Once the pool of participants was identified (they each confirmed meeting the participant criteria and were willing to participate), the consent form which included the objective and rational of the study, the study's procedures, participants' responsibilities, and the estimated timeline was signed and returned by the participants (Appendix B). Following this, a timeline to conduct data collection was confirmed. The instructions for participating, in the study and accessing and completing each questionnaire was relayed to each participant via e-mail.

Data Collection and Analysis

There is no typical Delphi; rather the method is modified to suit the circumstances and research question(s) (Skulmoski et al., 2007). A Delphi study can have 1, 2, or 3 rounds of data collection. A 3 round Delphi is typical however many single and double round Delphi studies have also been conducted (Skulmoski et al., 2007). The present study predicted that two rounds of data collection may be sufficient, however a third round would possibly be fundamental to reach richness. After the two rounds of data collection a great amount of effort went into determining whether a third round should be completed. Through my analysis of the data as well

as discussing the data with my supervisor it was agreed upon by both of us that the data had

reached richness and a third round of data collection was not necessary.

Round One. Round One involved distributing the first questionnaire to the Delphi

participants, who then completed and returned it to the researcher (Skulmoski et al., 2007). The

results of Round One were then thematically analyzed. According to Daly, Kellehear, and

Gliksman (1997), thematic analysis is a search for themes that emerge as being important to the

description of the phenomenon. The process involves identifying themes through "careful

reading and re-reading of the data" (Rice & Ezzy, 1999, p. 258) and these emerging themes

become the categories for analysis. In the present study, the purpose of Round One was to

collect basic demographic information (see Appendix C) and gather information about the

participants' most recent experience using dance to disseminate research plus four key questions

(See Appendix D). Information collected included the title of the study, research purpose(s),

research design/procedures, how dance was part of the study, number of team members and

roles, the participant's role and responsibilities, benefits of incorporating dance, and the

challenges inherent in this method of knowledge dissemination. Following this, four key

questions were posed. First, participants were asked if they thought dance was a useful means

for disseminating research findings and provide an explanation. Second, participants were asked

when it is appropriate to use dance as a tool for disseminating research findings and if there are

certain kinds of projects, purposes, and topics suited for the use of dance or can dance be used in

all research? Third, participants were asked about how to incorporate dance into research for the

purpose of disseminating research findings and if there are particular steps to the process. The

last question provided participants the opportunity to give advice to others interested in using

dance to disseminate research findings. These open-ended questions were used to start a focused investigation into dance and knowledge dissemination.

Round Two. Round One responses guide the creation and development of the questions in the Round Two Questionnaire (Skulmoski et al., 2007). Depending upon the research goals of a study using the Delphi method, the researcher may be directed by the opinions of the participants, or the researcher can direct the focus of the research (Skulmoski et al., 2007). In the current study Round Two (see Appendix E) contained anonymous responses from Round One as well as new questions. In Part One of the Round Two questionnaire, participants' quotes were selected from the Round One data and presented to participants. These quotes were intended to explore whether a consensus (an agreement amongst participants) could be reached. In Part Two of the Round Two questionnaire, questions were posed to participants relating to the consensus already reached from the Round One data. These questions were intended to address specific details about the consensus that emerged from Round One.

Data analysis. The written responses from the two rounds of data collection generated text that was analyzed inductively. Inductive analysis involves beginning with specific collected data and eventually moving to a more general conclusion based on the research findings (Schwandt, 2001). In the first round of data collection, the participants' responses were coded to identify areas of consensus and emerging categories. For example, I created three data sets from each panel members' responses and then read through their responses multiple times for general meaning and understanding. Then I consolidated the data into one data set and conducted a closer reading and analysis to identify key words and codes and common meanings that were then grouped together. In the second round of data collection, participants' responses were analyzed similarly and resulted in a final interpretation that identified areas of consensus and

non-consensus. After each round of analysis, I met with my thesis supervisor to discuss areas of

consensus, non-consensus, and emerging categories. These meetings provided an opportunity

for additional and alternative interpretations, comments, and understandings of the participants'

responses.

Evaluation Criteria for Trustworthiness

Trustworthiness gauges the "effectiveness and appropriateness of a Delphi study"

(Hasson & Keenley, 2011, p. 1700). To enhance the trustworthiness of the current study the

concepts of credibility, dependability, confirmability, transferability, bracketing, and reflexivity

were incorporated. Credibility of a Delphi study can be enhanced by continuous iteration and

feedback given to expert panelists (Engels & Kennedy, 2007). This was accomplished in the

current study when participants' exact responses from the first round of data collection were

anonymously included as feedback in the Round Two questionnaire. Dependability can be

achieved by including a range and representative sample of experts in a Delphi study (Cornick,

2006). The sample of participants in the present study had expert opinion about using dance to

disseminate research findings and represented the fields of health, education and performance.

All of the participants had used dance to disseminate research, each participant had experience

with dancing and two of the participants self-identified as lifelong dancers. Confirmability can

be evaluated by maintaining a comprehensive description of the data collection and analysis

process. This was achieved in the current study by following a clear timeline for data collection

that involved an organized and systematic process of creating and dispersing each questionnaire

one after another. In data analysis for each Delphi round participants responses were organized,

coded, and categorical charts were used. This provided an organizational system for data, which

was very helpful for interpretation and analysis. Lastly, transferability can be established

through the confirmation of the application or relevance of Delphi findings (Powell, 2003). The, present study was the first to systematically access and synthesize the expert knowledge of researchers and dancers who have used dance to disseminate research findings. These findings are transferable to other researchers and artists considering utilizing dance in research dissemination as well as ethics boards and those involved in arts research.

As an individual I had a personal connection with dance thus my interest and commitment to this research is personal. This is both a resource and a potential shortcoming. Reflexivity is a way to work with subjectivity. Ahern (1999) defined reflexivity as one's ability to "put aside personal feelings and preconceptions" and researchers' ability to "realize that they are part of the social world that they study" (p. 408). Thus reflexivity is the realization that it is impossible to completely be free of personal feelings and preconceptions (Ahern, 1999). Reflexivity is being honest and explicit about one's subjectivity, which will inevitably shapes and informs analysis (Ahern, 1999). Bracketing is another way to work with subjectivity. According to Ahern (1999), bracketing is the "process by which researchers endeavor not to allow their assumptions to shape the data collection process" (p. 407) or the "ability to put aside personal feelings and preconceptions" while collecting and analyzing the data (p. 408). Tufford and Newman (2010) recommend the following methods of bracketing: (a) writing memos throughout data collection and analysis as a means of examining and reflecting upon the researcher's engagement with the data, (b) consulting with an outside source such as a research associate to uncover and bring into awareness preconceptions and biases, and (c) having a reflexive journal to enhance the researcher's ability to sustain a reflexive position. In the present study two of these recommendations were followed: (a) I consulted with my research supervisor

and research committee to enhance bracketing and (b) I kept a research journal to track and reflect on personal responses through the research process.

Ethical Considerations

The current study received ethical approval from the University of Saskatchewan Advisory Committee on Ethics in Behavioural Science and Research on June 3, 2013 (BEH # 13-179). Participation in the present study was strictly voluntary. Through the informed consent process, participants were made aware of confidentiality issues and that they had a right to withdraw their participation at any time during the study. Since the internet was used to collect data from participants via e-mail particular attention was placed on ensuring the security of participants' responses. I used a secure private e-mail account that only I had access to when communicating with participants and receiving their data. All of the participants completed questionnaires sent via e-mailed were deleted from my private e-mail account and stored on a secure computer that only I could access. Extra care was also taken to ensure the participants identities remained anonymous in the feedback provided in the Round Two questionnaire from the Round One data.

In accordance with University of Saskatchewan regulations, data will be securely stored for the required minimum of five years in the office of my supervisor in the Department of Educational Psychology and Special Education. After five years, all data records will be appropriately destroyed beyond recovery.

CHAPTER 4: RESULTS

The purpose of this chapter is to describe the findings of the present study. I start by introducing the participants who contributed to this study. Next, a consensus statement of the findings are presented, followed by supporting quotations from participants. Participants' quotations are cited verbatim in order to enhance the authenticity, meaning, and context of the findings. Following this, an area of non-consensus that emerged amongst participants is presented. Lastly, the present study's guiding research questions are discussed.

Participants: The Delphi Expert Panel

A purposive sample was necessary since expert opinion was sought and the people selected are not to represent the general population, but rather, to have an expert ability to answer the research questions (Fink & Kosecoff 1985; Skulmoski et al., 2007). Initially four participants were recruited using e-mail through purposeful sampling, which involves selecting participants based on specific criteria. One participant withdrew from the study during Round One and did not contribute any data thus leaving the study with three participants. This male participant cited uncertainty about his ability to respond based on both having sufficient knowledge and sufficient time. The remaining participants included two females and one male, ranging in age from 56 to 68 years, and self-identifying as Italian-Canadian, Italian-American and British. All participants were employed faculty members at Canadian universities and their disciplines were in the fields of health, education, and contemporary dance. All three participants were university educated. Two of the participants held Doctoral degrees and one held a Bachelor degree. All participants identified themselves to be researchers with research experience ranging from 29 to 32 to 40 years. Two of the participants also identified themselves as a dancer and/or dance choreographer. All participants reported dance experience, ranging from 2 to 35 to 63 years. To

protect participant confidentiality, the pseudonyms of Spenser, Kim, and Brea were assigned to each of the three participants.

Consensus Statement of Findings

The expert panel agreed on the following statement of findings: Using dance for the purposes of knowledge dissemination is a complex and time-consuming process that requires expertise. Dance is a useful and valid means for disseminating research findings, both in qualitative and quantitative projects, because movement and dance are common to all humans and thus provide a common base or means for interaction. Dance and movement provide a legitimate way of knowing, expressing knowledge and concepts either differently or, in some circumstances, better than language. However, dance is not appropriate for use in all research projects, and there is no singular procedure for using dance to disseminate research findings. Dance evokes emotional, visceral and embodied responses that cannot be predicted. Consequently, researchers' ethical care and responsibility exceeds typical considerations and extends to others members such as the dancers and audience members. Researchers have yet to determine and articulate appropriate standards of care and responsibility.

Dance in Research is Complex, Time-Consuming, and Requires Expertise

When the participants reported about the research design and procedures of their most recent experience using dance to disseminate research findings, a small snapshot was captured regarding the complexity, time-consuming aspects, and required expertise for this type of research. For example, in relation to the complexity and time-consuming aspects of this research Spenser created an orderly list of all of his research steps:

1. Conceptualization of structures capable of changing the perception of time and the design of organic environment.

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2. One week setup of interactive systems in 50' X 50' Black Box, which include – Video recognition systems for gesture and blob sensing, pressure sensitive floor panels, projectors, 12 channel speaker array,

3. Installation of materials related to the construction of organic environment, which in this case was 13 tons of sand.

4. Designing the experiments so that they are repeatable.

Kim and Brea both provided a descriptive outline of their research design/procedures. For instance, Kim explained:

> Participant observation field notes and audiotaped transcripts of individual meetings between choreographer and social scientist and between creative and research teams over a six-month period were used to analyze our interchange and document the ways in which the research and artistic teams worked together across very different disciplines to communicate research findings through dance.

Brea reported on "three seventy-five minute sessions" that "took place over a three-week period." The sessions involved: an overview of the dance form, the teaching of specific Kathak vocabulary and dances, specific stories to be used for dance-making, and in the final session participants were assigned a section of a story that they could tell through movement.

In addition, all of the participants reported that expertise was required to conduct research that uses dance to disseminate research findings. For example, Kim had a research team, a creative team, a musician, and six dancers who all collaborated together and although Brea was "the sole researcher," she had a "dance teacher lead each of the sessions." Similarly Spenser listed five team members who worked along with him.

1. An interactive sound designer

2. An interactive light designer

3. A Visual Designer and video artist

4. An expert in the phenomenology of Gesture

5. A creative director and movement artist

From the participants responses it is evident that using dance to disseminate knowledge is incredibly resource intensive. It takes time, people, and money to conduct this type of research which overall points to the complexity of it.

Table 4.1: Participants Supporting Quotes
Kim: "Participant observation field notes and audiotaped transcripts of individual meetings between choreographer and social scientist and between creative and research teams over a six-month period were used to analyze our interchange and document the ways in which the research and artistic teams worked together across very different disciplines to communicate research findings through dance. The analysis involved a narrative or dramatic coding of the transcripts whereby text was identified to be used for particular narratives, or for informing character or scene development in the dance. This process helped to identify the segments of text that were used in the musical score accompanying the dance. The choreographer used a script as an organizational tool to track activity presented in the performance and provide a reference of what she was trying to convey. The script was required due to the multiple meetings, articles, and data summaries that were somewhat overwhelming. It helped to condense information into a story-like dance that would educate, rather than overwhelm, an audience."   **Brea**: "Three seventy-five minute sessions took place over a three-week period. The sessions included: a brief overview of the dance form; the teaching of specific Kathak vocabulary and dances; the story "Churning of the Milk Ocean" plus other stories to be used for dance-making; videotaped performance of the marriage of Rama and Seeta; and, in the final session an assignment to arrange a section of a story that they could tell through movement. After each session we would return to the classroom and briefly review the session. At this time the students would talk generally about what they had learned and how they had coped in the session. We asked them to write critically about their experience addressing the following questions: What strategies were used to teach the dance? What did you learn about yourself as a student and as teacher? and, What challenges did you face as a performer that you might encounter as a teacher? Each student's writing after the three sessions was read and specific themes were identified. Applying Hycner's model (1999) the reflections were bracketed to identify recurring themes and then delineated into units of meaning relevant to the purpose of the project. The units were grouped together in clusters with appropriate identifying titles. The clusters with the relevant units of meaning were presented to the students for a group dialogue. The discussion responded to the identified clusters and units of meaning. Finally a written composite summary of the clusters and units of meaning together with the final discussions were written."   **Spenser**:   1. Conceptualization of structures capable of changing the perception of time and the design of organic environment.   2. One week setup of interactive systems in 50' X50' Black Box, which include – Video recognition systems for gesture and blob sensing, pressure sensitive floor panels, projectors, 12 channel speaker array,   3. Installation of materials related to the construction of organic environment, which in this case was 13 tons of sand.   4. Designing the experiments so that they are repeatable.   **Kim:** had a research team, a creative team, a musician, and six dancers who all collaborated together with their areas of expertise.   **Brea:** "I was the sole researcher. The dance teacher led each of the sessions."

Dance is a Useful and Valid Means for Disseminating Research Findings Both in

Qualitative and Quantitative Projects

Participants all reported that dance is a useful means to disseminate research findings. Kim wrote about the usefulness of dance in her research project:

Yes – I think that our performances and post performance talk-backs have illustrated that dance is a useful means for disseminating research findings. We have collected more than 3000 post it notes that depict the visceral responses of various audiences.

Spenser reinforced this and wrote that "dance is useful because it can easily be employed as an expressive platform for both thought and action," and Brea reported that dance is useful "particularly if you are investigating the role and significance of dance – why not use dance to explore and disseminate those investigations?"

Along with this agreement, participants reported that the use of dance to disseminate research findings has also contributed to their personal discipline. For example, Spenser stated that "the physical always contributes to the mind." Kim explained how "using the dance to share empirical research findings allowed us to reach a broad range of audience members." Brea commented "I have been able to provide research findings through dance performance and choreography and have engaged students in doing the same. It has been very successful."

Participants also acknowledged that dance can be used to disseminate both qualitative and quantitative findings. Kim stated "Absolutely! I have witnessed it used to disseminate both types of research." Spenser also agreed but reported it to be more difficult to use dance for

quantitative findings and said "it is more difficult to reduce movement to data that can easily be understood on a level of clear statistical relevance." Brea wrote about her personal experience using both qualitative and quantitative findings:

> In revealing the quantitative findings I created a choreography that identified how and why the system is able to record movement clearly and efficiently. I believe this worked well. In another study where I explored young people's response to choreography I presented the qualitative findings in a dance performance. I believe these were clear examples of the success of providing the finding of the investigations.

Table 4.2: Participants Supporting Quotes
Kim: "Yes – I think that our performances and post performance talk-backs have illustrated that dance is a useful means for disseminating research findings. We have collected more than 3000 post it notes that depict the visceral responses of various audiences." **Spenser:** "Dance is useful because it can easily be employed as an expressive platform for both thought and action." **Brea:** explained dance is useful "particularly if you are investigating the role and significance of dance – why not use dance to explore and disseminate those investigations." **Kim:** "Using the dance to share empirical research findings allowed us to reach a broad range of audience members." **Brea:** "I have been able to provide research findings through dance performance and choreography and have engaged students in doing the same. It has been very successful." **Spenser:** "the physical always contributes to the mind." **Kim:** "Absolutely! I have witnessed it used to disseminate both types of research." **Spenser:** also agreed but acknowledged it to be more difficult to use dance for quantitative findings: "It is more difficult to reduce movement to data that can easily be understood on a level of clear statistical relevance." **Brea:** explained her personal experience using both qualitative and quantitative findings: "In revealing the quantitative findings I created a choreography that identified how and why the system is able to record movement clearly and efficiently. I believe this worked well. In another study where I explored young people's response to choreography I presented the qualitative findings in a dance performance. I believe these were clear examples of the success of providing the finding of the investigations."

Movement and Dance are Common to all Humans, Provide a Common Base/Means for Interaction and Provide a Legitimate Way of Knowing, Expressing Knowledge and Concepts Either Differently or Sometimes Better than Language

All participants agreed that dance and movement are common to all humans and provide a common basis for interaction. Spenser reported that dance "is the one instrument we all

possess and is in reality the basis of all interaction." Kim wrote "dance is definitely a basis for interaction in the way in which I used it." Brea stated

> I believe dance and movement is common to all humans and a common basis for
> interaction. Movement is common to all humans – we move for efficiency and at times
> we move to be expressive, such as gestures to communicate a greeting, etc."

> Participants were unanimous in their belief that dance provides a different way of knowing and can either express things differently or better than language. Kim reported that dance "provides a different way of knowing – often not possible to articulate in everyday language." She also wrote:

> Thinking about some of the key themes and concepts from the research – including but
> not limited to: heaviness/lightness; despair/hope; reaching out/holding back;
> isolation/community; and the ways in which these themes can be portrayed using music
> and movement – a very different way of sharing knowledge.

Spenser agreed and stated that "dance is founded on the expression of concepts yet living outside of the limited vocabulary of language. A single gesture can and often times does hold more information and in a richer structure that an entire short story." He also reported that "there are parts of knowing that can only be understood by the body and therefore can only be expressed using a vocabulary rooted in the physical." Parallel to both of these responses, Brea wrote:

> Yes, I do agree that dance provides a different way of knowing and there are some things
> that can be said better in dance that cannot be said in words – again the simple gesture
> that needs many words to explain or people find difficult to explain is communicated
> plainly through dance.

Table 4.3: Participants Supporting Quotes
Spenser: "Dance is a perfect vehicle for the study of time because is the one instrument we all possess and is in

reality the basis of all interaction"
Kim: "Dance is definitely a basis for interaction in the way in which I used it."
Brea: "I believe dance and movement is common to all humans and a common basis for interaction. Movement is common to all humans – we move for efficiency and at times we move to be expressive, such as gestures to communicate a greeting, etc."
Kim: dance "provides a different way of knowing – often not possible to articulate in everyday language."
Kim: "Thinking about some of the key themes and concepts from the research – including but not limited to: **heaviness/lightness; despair/hope; reaching out/holding back; isolation/community;** and the ways in which these themes can be portrayed using music and movement – a very different way of sharing knowledge."
Spenser: "Dance is founded on the expression of concepts yet living outside of the limited vocabulary of language. A single gesture can and often times does hold more information and in a richer structure that an entire short story."
Spenser: "There are parts of knowing that can only be understood by the body and therefore can only be expressed using a vocabulary rooted in the physical."
Brea: "Yes, I do agree that dance provides a different way of knowing. I have witnessed students have a profound response and understanding of an issue or idea through dance. I have seen students in an experience that explores identity through dance come to clear realizations of their worth, improving self-esteem and self-efficacy. I have observed students explore their values and beliefs about teaching and been able to express their findings more positively through dance. In conclusion, for some students being able to express their ideas through dance is a positive and rewarding experience. They are able to say more through dance."

Dance is not Appropriate for Use in all Research Projects and There is No Singular Procedure

Participants were unanimous in their belief that dance cannot be used for all research projects. Kim said "it really depends on the goals and objectives of each project." Brea also agreed and stated "I am not sure I can say all research can be undertaken using dance or that dance can be used to disseminate research. One uses the appropriate medium for the research and dissemination." Spenser reported that "dance can and is often used to address many research based concepts and directions." Nonetheless, similar to Kim and Brea, he did not believe that dance is appropriate to use for all research projects. Participants also agreed that there is no singular procedure for using dance to disseminating research findings. Spenser stated "Yes. There are as many ways of using dance, as there are ways to move" and Kim said "absolutely! I believe that there are a wide variety of ways." Brea also confirmed this and noted that the two different times she has used dance to disseminate research findings, one was for a qualitative study and the other one was for a quantitative study.

Table 4.4: Participants Supporting Quotes
Kim: "it really depends on the goals and objectives of each project".   **Brea:** "I am not sure that I would say that all research can be undertaking using dance or that dance can be used to disseminate research. One uses the appropriate medium for the research and dissemination."   **Spenser:** "I think that dance can and is often used to address many research based concepts and directions."   **Kim:** "Absolutely! I believe that there are a wide variety of ways.   **Spenser:** "Yes. There are as many ways of using dance, as there are ways to move.   **Brea:** "I described two ways that I have used dance to disseminate my research in notation and dance education."

Dance can Evoke Emotional, Visceral and Embodied Responses that Cannot be Predicted

The participants responses all echoed the same belief that dance can evoke emotion. For instance, Kim explained how dance has an emotional feature and stated "I find it hard to imagine that it would not evoke some type of emotional response." She also said "I would contend that it has a particular compelling emotional feature thus rendering it hard to avoid or intellectualize the very real difficulties and anguish and other elements of the lived experience (emotions) being portrayed." Spenser commented that all movement produces emotion:

> All movement evokes a human response, which in my opinion is holistic and cannot be broken into its constituent parts. Moving in and of itself produces emotion which is a natural and organic response to the physical mechanics of how the body moves through space and time.

Brea agreed that dance can evoke emotion but not for everyone: "I do not believe that dance evokes emotion for everyone. It depends on the choreography and the person. At times I believe it depends on the mood, disposition, etc of the viewer."

All participants also acknowledged dance to have the ability to evoke a visceral response, that is a deep inward feeling. For instance, Spenser expressed that viewers of dance will inevitably have a response to the visual stimulus and wrote "as an observer of dance, every response we have to outside stimulus provokes a response. Kim on the other hand commented that with dance "the potential for evoking such a response is enhanced." Lastly, Brea explains

that a visceral response can occur but not necessarily always experienced by audience members who observe the dissemination of research results through dance:

> No, I am not sure it does. When thinking about my own experiences and talking with students about their responses to a piece of choreography it seems that there is not always a visceral response. At times I am able to examine choreography for its form and structure and maybe in this focus there is no visceral response.

Once again participants agreed that dance has the ability to evoke an embodied response for audience members, however it may not occur all the time. For instance Spenser expressed that "It depends on the choreography" and then later wrote that "it has been my experience that every human reaction or response to stimuli is in some way embodied." Kim reported that based on her research experience "the audience members talk about the dance 'doing something' that is embodied." Brea also stated:

> I doubt if dance always evokes an embodied experience for audience members. Speaking personally there is always a kinaesthetic response, a feeling of the movement, the sensation of the movement through space and time, a knowledge of how the movement might feel in one's own body. Sometimes there is a feeling of discomfort if the choreography is inappropriate or the performers are not embracing the choreography.

Table 4.5: Participants Supporting Quotes
Kim: "The dance performance allowed us to address the visceral, emotional, and visual aspects of our research, which is frequently invisible in traditional academia" **Kim:** "I find it hard to imagine that it would not evoke some type of emotional response." **Kim:** "I would contend that it has a particular compelling emotional feature thus rendering it hard to avoid or intellectualize the very real difficulties and anguish and other elements of the lived experience (emotions) being portrayed." **Spenser:** "All movement evokes a human response, which in my opinion is holistic and cannot be broken into its constituent parts. Moving in and of itself produces emotion which is a natural and organic response to the physical mechanics of how the body moves through space and time." **Brea:** "I do not believe that dance evokes emotion for everyone. It depends on the choreography and the person. At times I believe it depends on the mood, disposition, etc of the viewer."

> **Kim:** "the potential for evoking such a response is enhanced."
> **Spenser:** "As an observer of dance, every response we have to outside stimulus provokes a response."
> **Brea:** "No, I am not sure it does. When thinking about my own experiences and talking with students about their responses to a piece of choreography it seems that there is not always a visceral response."
> **Kim:** "The audience members talk about the dance 'doing something' that is embodied."
> **Spenser:** "It depends on the choreography. Does it invite the audience in as participant or voyeur?"
> **Spenser:** "It has been my experience that every human reaction or response to stimuli is in someway embodied."
> **Brea:** "I doubt if dance always evokes an embodied experience for audience members. Speaking personally there is always a kinesthetic response, a feeling of the movement, the sensation of the movement through space and time, a knowledge of how the movement might feel in one's own body. Sometimes there is a feeling of discomfort if the choreography is inappropriate or the performers are not embracing the choreography. The times when one has a full embodied experience is when the choreography and the performers are fully engaged, the choreography communicates a clear message and one is fully open to the performance."

Non-Consensus with Researchers Ethical Care and Responsibility for Audience Members

In the first round of data collection, one participant introduced the idea that using dance in research involved ethical sensitivity in order to negotiate "dangerous emotional terrain." This comment about ethics was consequently pursued in the next round. In the follow up round, the participants' responses all relayed the common belief that researchers conducting research, which uses dance to disseminate research findings, have to assume a certain level of care and responsibility that exceeds typical considerations and extends to others such as the dancers and audience members. For instance, all of the participants agreed that when using dance in research dissemination, researchers have to conduct an extended level of care and responsibility to the dancers responsible for disseminating the research findings. However two opinions emerged about a researcher's responsibility and level of care for audience members. On the one hand, Spenser believed that researchers only need to consider a level care and responsibility towards the dancers involved, that is, "through a process of dialogue and negotiation with the dancer" but not with audience members. Spenser stated "art does not require audience consent" and "people always have a choice to accept or reject what is being presented to them and it is important that there is as much value in rejection as there is in choice." On the other hand, Kim and Brea

emphasized that a level of care and responsibility should be directed towards both the dancers and audience members. Brea stated:

> It has been important for all – performers and viewers – to be sensitive and careful in their responses. Thus it is important to build a safe and protected atmosphere for the sharing of their 'findings.' I believe that I am responsible to build this safe and protected atmosphere throughout the process; in fact, all the sessions involved in dance exploration and presentation should be safe for all concerned.

Kim responded that using dance in research involved ethical sensitivity to negotiate "dangerous emotional terrain" and furthermore "Researchers and artists should consider/discuss/anticipate the potential harms and benefits of viewing the artistic performance and have a plan to debrief if necessary."   Brea and Kim also agreed that it is necessary for researchers to gain audience consent since dance evokes unpredictable emotional, visceral, and embodied responses in audience members.

In conclusion researchers have not yet focused on this extended category of participants, particularly the audience members, that exceeds typical research considerations. Since dance evokes unpredictable emotional, visceral, and embodied responses in audience members there are unique ethical issues related to the use of dance to disseminate research findings that exceed current guidelines for carrying out research with human participants.

Table 4.6: Participants Supporting Quotes
Spenser: "In the physical arts it is always a balance between reason and negotiation. What we are attempting to construct with the body must always be justified through a process of dialogue and negotiation with the dancer."
Spenser: "No. People always have a choice to accept or reject what is being presented and it is important that there is as much value in rejection as there is in choice.
Kim: "consider the ethical issues related to confidentiality and anonymity, dangerous emotional terrain, issues of ownership and the aesthetics of the final product."
Brea: "It has been important for all – performers and viewers – to be sensitive and careful in their responses. Thus it is important to build a safe and protected atmosphere for the sharing of their 'findings'. I believe that I am responsible to build this safe and protected atmosphere throughout the process; in fact, all the sessions involved in dance exploration and presentation should be safe for all concerned."
Kim: "The researchers must ensure that the data are representative of research participant discourse – rigor and

Looking Back to the Research Question

The following research questions guided the present study: (a) why use dance to disseminate knowledge, (b) when is it appropriate to use dance, and (c) how do researchers and dancers go about using dance in research for purposes of knowledge dissemination?

Why Use Dance to Disseminate Knowledge?

All of the participants agreed that dance is a useful and valid means for disseminating research findings, both in qualitative and quantitative projects, because movement and dance are common to all humans and thus provide a common base or means for interaction. Dance and movement provide a legitimate way of knowing, expressing knowledge and concepts either differently or, in some circumstances, better than language. Dance also has the ability to evoke unpredictable emotional, visceral and embodied responses in audience members. Thus dance can bring people to a different state of being. One outside the common intellectual experience that is frequent in typical research.

When is it Appropriate to Use Dance?

The participants reported that dance is not appropriate for use in all research projects however dance can be used both in qualitative and quantitative projects. They also agreed that using dance for the purposes of knowledge dissemination is a complex and time-consuming process that requires expertise. Therefore researchers should consider whether dance is an appropriate medium to disseminate their research finding (e.g., communicating concepts like reaching out/holding back that exceed everyday language) and whether they have the proper resources (i.e., time, people, and money) required to conduct such research.

How do Researchers and Dancers go about using Dance in Research for purposes of Knowledge Dissemination?

Amongst the participants it was found that there is no singular procedure for using dance to disseminate research findings. Thus currently there is not a step by step prescriptive process to use dance for the purpose of knowledge dissemination. Nonetheless in the present study, the participants did agree that this type of research is not a one person research project. Researchers should be prepared and be able to work well with others because this kind of knowledge dissemination requires collaboration and teamwork. The participants' responses also relayed the same belief that when using dance to disseminate research findings, researchers have to use a certain level of care and responsibility that exceeds typical considerations and extends to others members such as the dancers and audience members.

CHAPTER FIVE: DISCUSSION

This Delphi study was conducted to explore dance as a medium for knowledge dissemination by systematically accessing and synthesizing the knowledge of researchers and dancers who have used this particular artistic method. The purpose of the following chapter is to summarize the key findings of this study, and integrate these results with existing literature. The chapter concludes with a discussion of the strengths and limitations of the study, and implications for future research and practice.

Summary of Findings

Three participants were involved in a two-round online Delphi study that included researchers and dancers who have used dance as a tool to disseminate research findings. In discussing their research experiences using dance, a consensus emerged amongst participants in the following areas: (a) using dance for the purposes of knowledge dissemination is complex, time-consuming, and requires expertise, (b) dance is a useful and valid means for disseminating research findings both in qualitative and quantitative projects, (c) movement and dance is common to all humans, provides a common base or means for interaction, and provides a legitimate way of knowing, expressing knowledge and concepts either differently or sometimes better than language, (d) it is not appropriate to use dance in all research projects and there is no singular procedure, (e) dance can evoke emotional, visceral, and embodied responses that cannot be predicted, and (f) researchers should conduct an added degree of care and responsibility when using dance to disseminate research findings because the ethical care and responsibility exceeds typical considerations and extends to others members such as the dancers and audience members. Findings particularly focused on the care for the audience members.

Although a consensus was reached between the participants in several topic areas, there were disagreements that arose associated with the ethical considerations regarding researchers' level of care for audience members when using dance to disseminate research. This disagreement reflects the unique ethical issues regarding the extended level of care and responsibility associated with using dance to disseminate research and researchers have yet to determine and articulate appropriate standards of care and responsibility.

Integration of Results with Existing Literature

The present study consolidated the current status of knowledge about the use of dance in research dissemination and suggested promising directions for the next steps in this area of research. The following section explores the commonalities of the current study's findings with the existing literature as well as findings not addressed in the current literature.

Findings Confirmed in the Literature

Using dance for the purposes of knowledge dissemination is complex, time-consuming, requires expertise and there is no singular procedure. The results from this study found that using dance for the purposes of research dissemination is a complex and time-consuming process that requires expertise and there is no singular procedure. This is consistent with the existing literature.

Bagley and Cancienne (2001) conceptualized, described, and reflected on their experience of using dance to (re)represent and disseminate research findings at the 1998 Conference of the American Educational Research Association. The researchers described their research procedure that initially involved data collection and the selection of 10 in-depth interviews from research on school choice policy and its impact on families whose children

have special educational needs, that broadly reflected their data. Cancienne, an expert in the area

of performing arts, then (re)interpreted and (re)represented the data as a choreographed dance

performance. Some of the difficulties derived from the researchers' experience using dance to

(re)represent and disseminate research included the complexity and time-consuming aspects of

this task. Cancienne stated "I found the choreographic process to be much more time-consuming

and traumatic than I had imagined" (p. 225). Bagley and Cancienne reported that this research

involved a great deal of communication and team work. Cancienne described a lengthy and in

depth choreographic process that involved: reading academic articles related to the research

topic, rereading, analyzing, and interpreting the 10 interviews to became familiar with the

meaning and feeling of the data, highlighting and then tape recording action verbs, adjectives and

adverbs in sequences to listen to and visualize choreographic possibilities, and lastly creating the

choreographed dance.

Boydell (2011) reported a similar complex and lengthy process when she brought

scientists and artists together to create a dance performance representing her research on early

psychosis. The research and artistic teams worked together across very different disciplines to

communicate research findings through dance. Over a six-month period participant observation

field notes and audiotaped transcripts of individual meetings between scientists and artists were

used to analyze their interchange and document the ways in which they worked together to

communicate research findings through dance. The process involved ongoing negotiation to

harmonize differing opinions and viewpoints regarding how to take textual data and translate it

into a performative form. Throughout the process, many challenges were faced such as the

research team having to shift their thinking in order to provide the creative team with the space

to (re)interpret the data in the form of movement. The artistic team also had to face the artistic

challenge to "perform" the first episode psychosis in a way that fascinated an audience and reflected empirical research findings (p. 2).

Similarly, Markula (2006) documented her process of using a dance performance to represent and disseminate feminist research. She aimed to record this process through her own experiences of choreographing and performing a solo contemporary dance piece that embraced a feminist agenda of representing a positive feminine identity. Markula, having a background in dance, experienced many frustrations and difficulties when trying to reconstruct the feminine body through choreography and into an informed research performance. In her first attempt with her dance performance in front of an audience, Markula stated that she "failed" to properly represent and disseminate her feminist agenda as she later found out that the audience saw her dance as something different from what she was intending to convey (p. 5). Markula stated "I was so frustrated by the difficulties of communicating my research through a dance performance that I vowed not to continue with 'this line of performance'" (p. 5). Despite this discouraging first attempt Markula created a new dance performance based on the same research agenda of representing and disseminating feminist research. She then performed this dance piece three times for three different audiences consisting of her academic colleagues, an all-female audience who had performance experience, and a seminar audience of scholars. She reported each performance to be informative in several ways as she learnt from each one how to better convey her research message to audience members. Although this was a complex and time-consuming process, Markula concluded that (a) a dance performance has potential to succeed as a research presentation, and (b) researchers need to proceed cautiously by retaining a close connection to the audience's experiences yet assuming a clear theoretical vision. Despite the multiple

complications of representing and disseminating research through dance, Markula found that after the initial frustration it was a rewarding process.

Not appropriate to use dance in all research projects. Participants in the current study were unanimous in their belief that dance cannot be used for all research projects. The existing literature has similar conclusions. For example Blumenfeld-Jones (1995) stated:

> We should recognize this: Surely not all sorts of research would be well reflected upon by dance. Surely, if we want to tell you about a classroom and its life, I would only trivialize that classroom by "dancing out" or miming the actions of the humans in the classroom. To dance these parts, to be a grown person trying to move like a child or adolescent, this would be a discouraging use of dance. Nor can I saliently show you the results of some experimental process in the classroom nor an evaluation of a curriculum. No, none of these seem appropriate to the dance (p.393).

Parallel to this point, Markula (2006) argued that using dance to represent and disseminate research has to be combined with theory and artistic expression. Therefore dance can only have an impact if it is theoretically an appropriate choice. She also recommended that when researchers are deciding whether dance is an appropriate art form to use, there are two specific problems that need to be considered. First in today's language-oriented society reading a dance "text" is challenging. Secondly the movement material of the dance performance has to be grounded in theory to serve as research.

Unique features of dance. The results of this study identified several unique features associated with dance as were found in existing literature. First, the participants in the present study believed that dance is a different and legitimate way of knowing and it can be used to express emotions, concepts, and knowledge differently or, in some circumstances better than

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language. These perspectives are consistent with the existing literature. For example, Jones (2006) argued that by integrating art forms into the research process it is possible to construct alternative forms of representation that encourage conversation and shared storytelling. Barbour (2006) stated that art forms in research can significantly contribute to the generation of new understandings not only of artistic practice, but also towards knowledge and society in general.

Specific to dance, Blumenfeld-Jones (1995) explained dance as a unique art of motion that allows new dimensions of a phenomenon to become available. Cancienne and Snowber (2003) argued convincingly that the art of dance, choreographed dances, and everyday movement provides a system of meaningful motions of the body that can communicate meaningful expressions of knowledge.   A similar stance was taken by Sheets-Johnstone (1999) who stated that movement is "the originating ground of our sense-makings" and people learn about themselves and others initially through moving (as cited in Barber, 2006, p. 3). Toncy (2008) described dance as an effective tool for expressing and conveying emotions and Fraser and Sayah (2011) expressed that using the arts can be especially useful to address sensitive research topics and to deliver messages that are not easily articulated or expressible in words. Lastly, as a dance choreographer involved in research, Barbour (2006) acknowledged that she has come to know through other non-traditional methods such as dance for establishing knowledge. She stated that she appreciates that her epistemological strategies are different from traditional ways of knowing. Barbour said "there is much that I know as a dancer that is tacit, that is knowledge in action, that I am unable to translate directly into words and that is better expressed through moving in the world" (p. 2).

Secondly, the participants in the present study were unanimous in their belief that dance has the ability to evoke an emotional, visceral, and embodied response for audience members

that cannot be predicted. Similar discussions appear from scholars in the existing literature. For example, Jones (2006) argued that by integrating art forms into the research process it is possible to evoke emotional responses. Lapum, Ruttonsha, Church,Yau, and David (2011) also pointed out that incorporating art is an important aspect of research since it "engages audiences beyond the rational and analytical surface of conventional publications, to capture the complete spectrum of human needs" (p. 102). Parallel to this, Boydell, Gladstone, Volpe, Allemang, and Stasiulis (2012) expressed that applying artistic formats are said to inform and enrich the research process by encouraging individuals to connect with research on a personal and emotional level.

In relation to dance specifically, Boydell's (2011) study involved a team of researchers and artists that created a dance performance to represent her research findings on early psychosis. The research team believed the dance performance allowed them to address the visceral, emotional, and visual aspects of their research on this topic. They also believed that dance served as a tool for embodiment and allowed the audience to come to understand the phenomenon in a more intuitive and holistic way. Similarly, Barbour (2006) also argued that using dance in research is an embodied way of knowing that can encompass all research stages including research dissemination. Barbour explains that embodied ways of knowing like dance enables people to view all knowledge as constructed, contextual, and embodied.

Within the existing literature, researchers and scholars have explored the audience effects of viewing dance. Jones (1995) argued that dance represents an idea, topic, or abstract symbolic narrative which can be taken as a meaningful action and treated as text. The rise and fall of bodily rhythm in a space characterized in shape and motion is the reflection upon the idea. The audience becomes one with the dance text to the extent that they are willing to participate in the interpretation of the movement.

Reason and Reynolds (2010) composed a research paper based on the data from an ongoing three-year, multidisciplinary project called *Watching Dance: Kinesthetic Empathy* that uses audience research and neuroscience to explore how dance spectators respond to and empathize with dance. These researchers gathered audience research data from this project through a range of qualitative approaches including focus groups, interviews, and other creative techniques that involved in-depth engagement with small numbers of individuals in order to gain a rich and detailed understanding of their experiences and responses to dance performances. Some of the key findings were that audience members reported experiencing a wide range of emotions while viewing dance, ranging from positive and happy feelings to very powerful, unexpected, and uncomfortable emotions. It was also found that audience members experienced embodied responses where their breathing, posture, and energy were altered by the process of watching dance.

Similar to this and derived from the same project, *Watching Dance: Kinesthetic Empathy,* Jola, Ehrenberg, and Reynolds (2012) conducted qualitative interviews with audience members' after they had watched a dance performance. The researchers' emphasis while conducting these interviews was to encourage participants to describe what they had seen or felt and their responses to it. The researchers gathered emotional and embodied responses from participants. The participants' expressed that they valued the physical closeness with the dancer, the performance was enjoyable, they felt involved and emotional, and they even felt a desire to want to dance.

Findings Missing In the Literature

Consideration of the ethical considerations regarding the level of care researchers should be exercising towards audience members when using dance to disseminate research findings

does not appear in existing literature. Further, the current literature does not seem to investigate and report on the ethical issues researchers should be considering when using any art form to disseminate research knowledge.

The participants in the present study agreed that researchers ought to conduct a certain level of care and responsibility for either the dancers' disseminating research, the audience members, or both when using dance in research dissemination. However, as mentioned in Chapter 4, two different opinions emerged when specifically addressing the researchers' level of care for audience members. The perspective articulated by Spenser was that researchers need to consider a level care towards the dancers involved "through a process of dialogue and negotiation with the dancer." Spenser did not believe that researchers had to exercise a level of care towards audience members since "art does not require audience consent" and "people always have a choice to accept or reject what is being presented to them and it is important that there is as much value in rejection as there is in choice."   Kim and Brea voiced another opinion, agreeing that a level of care and responsibility should to be directed towards audience members. Kim responded that "researchers and artists should consider/discuss/anticipate the potential harms and benefits of viewing the artistic performance and have plan to debrief if necessary." Brea also agreed and stated researchers need to be "sensitive and careful in their responses," "build this safe and protected atmosphere throughout the process," and "know the experience of the audience members." They also both agreed that it is necessary for researchers to gain audience consent for the participation in viewing dance being used for research dissemination.

These differing opinions point to the unique ethical issues associated with using dance to disseminate research. The findings from the present study as well as the existing literature reinforces that dance can evoke emotional, visceral, and embodied responses that may be

comfortable or uncomfortable for audience members and cannot be predicted. The participants'

in the current study also relayed the same belief that that researchers have to conduct research

that uses dance to disseminate research findings with a certain level of care and responsibility

that exceeds typical considerations and extends to other members such as the dancers and

audience members. This knowledge raises the question to whether or not researchers who use

dance to disseminate research findings should consider the unpredictable effects of viewing

dance and consequently extend their level of care and responsibility to the added members

involved, in this case particularly the audience members. As mentioned previously, researchers

have yet to recognize and articulate appropriate standards of care and responsibility for this kind

of research dissemination and the audience members involved. With this knowledge perhaps it

can be suggested that ethics boards should start considering the additional participants involved

in this research and start reviewing studies aware of these added participants for whom there are

ethical considerations to be made. Therefore this is an area where future research is needed.

Researcher Reflections. My academic background is in counselling psychology and a

career that is being established in the helping profession heightened my attention and interest in

ethics. Through my training in counselling I have gained a strong sense of awareness about the

ethical level of care and responsibility I have towards my clients' emotional, mental, and

physical wellbeing. As a researcher, I also carried this awareness into the current study by

applying ethics and the appropriate level of care towards participants. When I considered the

present study, its findings, and the ethical question it raised, I found that I do believe that

researchers who use dance to disseminate research findings should be informed about the

unpredictable emotional, visceral, and embodied responses that can be evoked from viewing

dance.   It is my belief that with this insight researchers' should use certain ethical procedures to exercise the appropriate level of care for audience members.

My opinion was also strongly influenced by a personal experience I had while I was conducting this research. In 2013, I attended a dance production called the "Silent Survivor" project that premiered an interpretive Traditional Dance, representing the story of the Aboriginal residential school experience. This event was intended to provide the opportunity to explore, acknowledge, and understand residential school's impact on First Nations people and Canadian society in a holistic manner rather than traditional academic presentations oriented to cognitive intellectual ways of knowing. The event also included a panel of Residential School survivors that were invited to share their story, interact with the audience, and answer questions following the dance performance.

I was interested in both the use of dance as a tool to disseminate knowledge and the topic at hand. I attended the performance with my partner feeling intrigued that the arts, particularly dance was being used to share this story. The dance production was a powerful and emotionally evoking performance that represented the painful experiences that many First Nation's people endured as a result of attending residential schools in our province. Reflecting back, I remember experiencing a wide range of emotions in response to the dance performance. By the end of the dance, I felt deeply saddened and emotionally overwhelmed and vulnerable. However, my feelings intensive further when the panel of residential school survivors shared their personal stories.

By the time the question and answer session began, I was emotionally exhausted and knew that I had personally reached my limit of what I could absorb and integrate in one evening. However, I did not feel like it was an option for my partner and I to leave. I felt trapped in the

experience and believed that I had no choice but to continue participating because of the context of the subject matter and how the facilitators conducted this event. The majority of the people who attended this event were First Nations people, many of whom had been directly or indirectly impacted by residential school experiences. My partner and I, both Caucasian and without residential school experience, were in the minority. Consequently, I was uncertain whether or not it would be insulting or disrespectful for my partner and I to leave based on the relation to us being Caucasian and the subject matter of the event. It became even more uncomfortable when the question and answer period began because it transcended into an opportunity for many people to share their personal stories related to residential schools. Many of these stories centered around the awful things White people did to First Nations people, and several First Nations people even disclosed consequently hating White people for a long time as a result of their traumatic experiences.

I was horrified and appalled by all the terrible things that happened to First Nations people in residential schools. I wanted to show my support by attending this event. However, I ended up feeling unsupported, unwelcomed, and uncomfortable when audience members were allowed to freely share their personal stories without any boundaries or apparent concern for audience members' experiences. As I assessed the situation from a counselling perspective, it seemed that viewing the dance and being exposed to personal stories 'triggered' many of the audience members' memories and emotions as they came to the microphone and poured out their personal stories. Throughout this experience, I was not only personally struggling with my emotions, I was also concerned about the other people in the audience and the level of care they may require after such an emotionally charged and evoking event.

Looking back, I would have had a different experience had the facilitators demonstrated a level of care for the audience members as well as exhibit a level of preparedness for the potential harms and benefits potentially resulting from the event. I do not think that the facilitators of this event intended to demonstrate a lack of care for the audience members. Instead, I believe that this emphasizes the gap in the research regarding the unique ethical issues related to using dance in research and the undetermined appropriate standards of care and responsibility researchers should be following.

Based on my experience, it would have been helpful for the facilitators of this event to consider that: (a) I was unprepared for the emotional involvement I would experience during the dance performance. A forewarning about the dance and its ability to evoke an emotional response would have been a reasonable way to prepare audience members; (b) I felt like I had no choice but to keep participating in the event even though I was ready to leave. I believe it is important to inform audience members that they are free to leave at any time and no one is expected to participate; (c) I was concerned about the memories and emotions that the dance performance triggered for many of the audience members. Since dance has the ability to evoke these unpredictable responses, facilitators and researchers should carefully prepare for this and have professional counsellors on site to assist any anyone who may need support; and (d) facilitators and researchers should be careful with how they conduct question and answer periods post performance such that audience members who are emotionally triggered are not disclosing information that may be potentially harmful for themselves or the people around them.

Although the "Silent Survivor" project was not a research project where dance was used to disseminate research findings, I have drawn parallels to the use of dance in research. I believe that researchers who want to use dance to disseminate research findings could use the

recommendations I have brought forth as they consider and develop their research projects. Having the awareness that emotional, visceral, and embodied responses can be evoked by viewing dance and consequently preparing the audience for these unpredictable responses would provide an appropriate level of ethical care in these situations.

Strengths of Current Study

Several strengths were present in this research. Primarily, research in the area of dance as knowledge dissemination is limited and currently few studies have been conducted (Boydell, 2011; Jasny & Zahn, 2011). Therefore, the purpose of the current study was to explore this topic by gaining insight from researchers and dancers who have had the specific experience of using dance as a tool for disseminating research findings. The findings from the present study as well as existing literature confirmed that dance can evoke emotional, visceral, and embodied responses for audience members that cannot be predicted. Thus researchers should be aware of the unpredictable effects of viewing dance and consequently utilize the proper ethical care and responsibility that exceeds typical considerations and extends to others members such as the audience members.

Not only should researchers be aware of the unpredictable effects of viewing dance but ethics boards should be informed as well. For this study I conducted a literature search to seek out whether ethics boards have added ethical considerations for knowledge dissemination using the arts in research. I found little to no information on this topic and nothing related specifically to the use of dance in research for knowledge dissemination purposes. I then contacted my present university's ethics board, the University of Saskatchewan, and inquired the following questions: (a) what kind of ethics review is necessary for Knowledge Dissemination using the arts (i.e., using dance or music to disseminate research findings), (b) is there different procedures

taken from typical research when using the arts to disseminate research findings (c) are there particular ethical concerns with Knowledge dissemination using the arts (d) are there separate application forms?, and (e) how much attention is spent to knowledge dissemination using the arts. I spoke directly to an individual from the ethics board department and this person confirmed that currently the University of Saskatchewan does not have special considerations, application forms, and procedures for knowledge dissemination using the arts, including the use of dance. Therefore ethics boards have also yet to determine and articulate appropriate standards of care and responsibility for knowledge dissemination using the arts, including the use of dance. Hopefully, this current study's step in broadening the scope of dance and knowledge dissemination will inspire other researchers' and even ethics boards interest to further explore the added degree of care and responsibility associated with the use of dance in research dissemination.

The participants were all mature and experienced researchers who had used dance to disseminate research findings and surprisingly all of them had dance experience. Two of the three participants were lifelong dancers and one participant had danced when she was younger. Having both of these experiences as a researcher and dancer added to the breadth and depth of the data obtained through the Delphi method. For instance all of the participants were able to speak about dance itself (i.e., unique features of dance) which is knowledge that is anchored in their experience of dance.   As someone who has dance experience I am aware that dance has given me a new way of learning, connecting, and understanding myself and the world.   Since the participants have also experienced dance they too bring a level of understanding and knowledge from their own experience of dance. All of the participants being both experienced researchers and having dance experience added to the richness, credibility, and quality of the data obtained.

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My supervisor's experience and expertise in music therapy and qualitative research and my personal connection to dance as a former dancer enhanced the quality of my data. My personal experiences as a dancer provided me knowledge about the emotional, visceral, and embodied connection I have experienced while dancing and observing dance. This understanding of dance helped me to better understand the participants' experiences with dance, which contributed to the rich understanding of the data.

Limitations of Current Study and the Delphi Method

There are two main limitations of this study and one limitation associated with the Delphi method. First, the small sample size of three participants restricted the richness of these findings as does the limited number of people doing this work. A larger sample would have provided a broader picture of the use of dance in disseminating research findings. However currently there are few researchers and dancers involved in this type of work. Thus there was only a small population of researchers and dancers to recruit. In order to access a larger participant pool, it may be necessary to allow more time for this area of research to develop and expand.

Secondly, a limitation is the people being recruited as participants, that is researchers and dancers. These individuals are very busy and are doing things in their work that are on the edge, not well resourced and supported, and often driven by their own passion. Consequently they have limited extra time to volunteer and participate in other research projects because of their busy demanding professional lives.

Lastly, the Delphi method used in the present study offered one main limitation. The online questionnaires used with the Delphi method in this study prevented my ability to use in-the-moment interview strategies to probe participants' responses, clarify their answers, and elaborate on the knowledge they presented.

Implications for Future Research

The present research was unique in exploring dance as a medium of knowledge dissemination by systematically accessing and synthesizing the knowledge of researchers and dancers who have used this particular artistic method. The literature reviewed identified there to be a lack of research regarding dance for the purpose of knowledge dissemination within research. Only a few researchers have conducted studies that used dance to disseminate research findings and, until this present study, this accumulating knowledge had yet to be systematically integrated.

The findings from the present study as well as existing literature confirmed that dance can evoke emotional, visceral, and embodied responses for audience members that cannot be predicted. In the current study, participants believed that researchers have to conduct research that uses dance to disseminate research findings with a certain level of care and responsibility that exceeds typical considerations and extends to others members such as the dancers and audience members. However two opinions emerged about the researchers' responsibility and level of care for audience members. One participant believed that researchers need to consider a level care and responsibility only towards the dancers and not towards audience members. The other two participants believed that a level of care and responsibility should be directed towards both the dancers and audience members.

As mentioned previously, researchers and ethic boards have not yet focused on this extended category of participants, particularly the audience members, that exceeds typical research considerations. Since dance evokes unpredictable emotional, visceral, and embodied responses in audience members, this present study brings to light that dance may not be the same as other dissemination strategies and is not just another way to share research findings. There

are added ethical issues related to the use of dance to disseminate research findings that seem to exceed current ethical guidelines. A next step in future research could be taking this study's findings under consideration with the goal of creating a "how to guide" for researchers who want to use dance for research dissemination. This guide would include the ethical level of care and responsibilities researchers should have towards the dancers and audience members involved. Future research is needed in this area to provide appropriate guidelines.

Implications for Research Practice

The findings from the current study are pertinent to researchers interested in using dance to disseminate research findings. First, researchers should consider why dance would be an appropriate medium to disseminate their research findings, since it is not applicable for all research. Second, researchers should also be informed that using dance to disseminate research is a complex and time-consuming process that requires expertise, and there is no singular procedure. Thus this research dissemination strategy is resource intensive (i.e., time, people, and money). Similarly, they should be prepared and be able to work well with others; this kind of knowledge dissemination requires collaboration and teamwork. Third, researchers should also be aware of the unpredictable emotional, visceral, and embodied responses audience members can experience. Consequently, researchers should conduct an added degree of care and responsibility when using dance to disseminate research findings since the ethical care and responsibility exceeds typical considerations and extends to others members, in this case particularly the audience members. I believe that researchers can provide the appropriate level of care and responsibility to audience members by informing audience members that dance can evoke emotional, visceral, and embodied responses different from the typical intellectual experience associated with research. Researchers should also prepare for comfortable and/or

uncomfortable reactions that may arise for audience members viewing dance. Researchers could prepare by having professional counsellors and /or psychologists on site to assist anyone who may need support. It may also be helpful for researchers and counselling and psychology professionals to have a structured post-performance discussion with the audience members where they have the opportunity to debrief about their experience and the dance performance.

Conclusion

In conclusion, this Delphi study gathered experienced-informed opinions on the use of dance as a tool to disseminate research findings. An analysis of the participants' responses to two questionnaires confirmed the results of existing literature and revealed novel insights about using dance to disseminate research. The present study extended the literature in the area of arts research, particularly in the area of dance, and suggested that researchers should conduct an added degree of care and responsibility when using dance to disseminate research findings because the ethical care and responsibility exceeds typical considerations and extends to others members such as the dancers and audience members. In this case, there was a particular interest in the audience members.

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Shall We Dance?!

Using the creative arts in the research process is an innovative topic in qualitative inquiry. Artistic forms such as theater, dance, photos, music, and poetry are increasingly being used to generate data, and disseminate findings (Woo, 2008). The very qualities of aesthetic media that make them therapeutically effective (e.g., ability to release emotions), also make them effective in the research process (Thom, 2010).

As a graduate student in Educational Psychology and Special Education at the University of Saskatchewan *I am interested in the use of dance as a tool for knowledge dissemination within research.* Under the supervision of Dr. J.A.J. Nicol (registered psychologist) I am inviting you to participate in a research project entitled *Disseminating Knowledge with Dance.*

In order to participate, you must:

a) have been a part of research which has used dance in any aspect of the research process (i.e., arts researcher or dancer);

b) be willing to share their experiences via e-mail with the researcher;

c) be willing for the researcher to share their responses with other panel members;

c) be comfortable with computers (i.e., typing and able to interact via e-mail) and has access to a computer;

d) be willing to complete as many Delphi rounds as needed (at least 2, no more than 4; and

e) be fluent in English.

If you are able to contribute to this study please contact Katie McCaw at
Kam239@mail.usask.ca for more information.
If you know of someone who could meet the criteria to participate it would be greatly
appreciated if you could pass this invitation along.

Appendix B: Participant Consent Form

Consent Form

You have been invited to participate in a study entitled "Disseminating Knowledge with Dance". The following form outlines the study's objective, rationale, procedure and study timeline, potential risks and benefits, issues of confidentiality and data storage, as well as your right to withdraw from the study and to ask any questions you might have.

Researchers: Katie McCaw, M.Ed Candidate (email: kam239@mail.usask.ca, phone: (306) 290-9557) & Dr. Jennifer Nicol (Thesis supervisor), Department of Educational Psychology & Special Education, University of Saskatchewan (email: jennifer.nicol@usask.ca, phone: (306) 1966-5261.

Objective: This study is intended to investigate the experiences and opinions of researchers and dancers about the use of dance in research as a tool for knowledge dissemination.

Rationale: There is a growing body of research integrating the arts into the research process. Artistic forms such as theater, dance, photos, music, and poetry are increasingly being used to generate data, and disseminate findings (Woo, 2008). The focus of this study is knowledge dissemination, which the Canadian Institutes for Health Research (CIHR, 2009) defined as "a specific and purposeful approach to sharing research evidence with knowledge users" that involves identifying the appropriate audience and accommodating the message and medium to the audience. The use of theater and photography in knowledge dissemination has garnered most attention in the current literature (Rossitera, Kontosa & Colantonioc, 2008; Lapum, Ruttonsha, Church, Yau & David, 2011). There are fewer references to dance (Cancienne & Snowber, 2003). Nonetheless, researchers have recognized that dance suits the purposes of knowledge dissemination. This study's purpose is to advance understanding about using dance and movement in research as a tool for knowledge dissemination.

Procedures: A group of 5-10 researchers and dancers will be consulted. Two to three rounds of online questionnaires will be conducted. Participants will have one-week to complete each questionnaire, which will take place over a 4-6 week timeframe. Each questionnaire will have 3-5 questions, will be sent by email, and will take approximately 20-45 minutes to complete. There will be 1 or 2 weeks between questionnaires.

Benefits: By partaking in this study participants will have the opportunity to reflect upon their experiences of using dance in any aspect of the research process as well as learn and share opinions with other researchers and dancers. Participants will also be making a contribution to extend knowledge within this area of arts research.

Risks: There is no risk apparent in this study. Participation is strictly voluntary and participants are free to withdraw from the research at anytime, or choose to not answer questions on the survey. Safeguards will be implemented to ensure confidentiality in the analysis of data and conclusions. Though all data gathered through the study will be treated with confidentiality, anonymity cannot be assured.

Questionnaire: The questionnaires will be created using Microsoft Word and e-mailed to participants individually. Participants can then type their answers on the Microsoft Word document and e-mail it back to the researcher. Each survey will take about 20-45 minutes to complete.

Confidentiality: Your privacy will be respected. Your name will not be attached to any information, nor mentioned in any study report, nor be made available to anyone except the research team. There is however limits on confidentiality due to the small sample size of participants with specific knowledge about the study's topic and the procedures for recruiting participants (you may be referred to the study by someone outside the research team). It is the intention of the research team (student researcher Katie McCaw M.Ed Candidate & Dr. Jennifer Nicol Thesis supervisor) to publish results of this research in a thesis and scientific journals and to present findings at related conferences, but your identity will not be revealed.

Storage of Data: All contributions made by participants will be kept confidential during data analysis and not shared with others outside the research team. The student researcher Katie McCaw will store the raw data password protected on a personal computer in order for data analysis.

Once thesis is successfully defended, raw data will be printed and stored by faculty supervisor Dr. Jennifer Nicol for five years upon completion of the study; after five years paper data will be shredded. Data will be stored in a filing cabinet in her office; all other necessary paperwork will be stored with Dr. Jennifer Nicol as well. Once electronic data is printed and stored, raw electronic data will be destroyed via a secure trash function on the student researcher's laptop.

Right to Withdraw: Your participation is voluntary, and you can answer only those questions that you are comfortable with. The information that is shared will be held in strict confidence and only discussed amongst the research team. You may withdraw from the research project for any reason and without penalty of any sort. Your right to withdraw data from the study is until September 1st, 2013. After this it is possible that some form of the research dissemination has already occurred and it may not be possible to withdraw your data. Please contact the student researcher Katie McCaw prior to this date if you wish to withdraw (kam239@mail.usask.ca).

Other: This research is for a graduate student's master's thesis.

Questions: If you have any questions concerning the research project, please feel free to ask at any point; you are always welcome to contact the researchers via e-mail or through the numbers provided if you have any questions. This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board on. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975. If you are interested, you may obtain the results of the study by contacting the student researcher Katie McCaw, or Dr. Nicol.

Follow-Up: A thank-you email will be sent to conclude the study.

Consent to Participate: I have read and understood the description provided above. I consent to participate in this study, understanding that I may withdraw at any time.

Please type a statement beside the X stating "I (blank) agree to participate in this study."

X

You can also call the student researcher Katie McCaw or the research Supervisor Dr. Nicol and give verbal consent.

Katie McCaw: (306) 290-9557
Dr. Jennifer Nicol: (306) 966-5261

Appendix C: Demographic Form

Demographic Information

(a) Gender:

(b) Age:

(c) Ethnicity:

(c) Highest educational degree:

(d) Current employment – title/position:

(e) Do you identify as a researcher, a dancer or both?

(f) Years of experience doing research?

(g) Years of experience dancing?

Appendix D: Round One Delphi Questionnaire

Round One Questionnaire

Please describe your most recent experience using dance in research dissemination, a project in which **dance was used "to share research evidence with knowledge users"** (CIHR, 2009).

- Study's name

- Study's Purpose

- Research design/procedures

- How dance was part of study

- # of team members and roles

- Your role and responsibilities

- Benefits of incorporating dance?

- Challenges?

Four key questions

(1) Do you think dance is a useful means for disseminating research findings?   Explain why or why not.

(2) When is it appropriate to use dance as a tool for disseminating research findings? Are there certain kinds of projects, purposes, and topics suited for the use of dance or can dance be used in all research?

(3) How do you incorporate dance into research for the purpose of disseminating research findings? What are the steps or the process?

(4) Advice for others interested in using dance to disseminate research findings?

Appendix E: Round Two Delphi Questionnaire

Round Two Questionnaire

<u>PART 1</u>

<u>Directions</u>: Excerpts from Round One answers are copied below. Please read each quote and answer the corresponding question.

Excerpt 1:

> *The dance performance allowed us to address the visceral, emotional, and visual*
>
> *aspects of our research, which are frequently invisible in traditional academia."*

*Does dance always evoke emotion?

*Does dance always evoke visceral responses?

*In your discipline, what visceral and emotional aspects of knowledge are communicated by dance ?

Excerpt 2:

> *Dance is a perfect vehicle for the study of time because it is the one instrument we all*
>
> *possess and is in reality the basis of all interaction.*

*Is dance and movement common to all humans and a common basis for interaction?

* If your answer is yes, how would you explain that to a non-dancer and/or skeptic?

Excerpt 3:

> *The audience members talk about the dance 'doing something' that is embodied*

*Does dance always evoke an embodied experience for audience members or is it an invitation that can be accepted or rejected? Please explain your answer.

*As a researcher using dance for research dissemination, is it important to you that in those studies the audience have an embodied response? Please explain your answer.

Excerpt 4:

> *Dance provides a different way of knowing.*

*Do you agree or disagree? Please explain your answer

Excerpt 5:

> *I think that qualitative inquiry lends itself quite nicely to the use of arts-based methods generally and the process of choreographing a dance is similar in many ways to the art of qualitative inquiry.*

*Can dance be used to disseminate qualitative AND quantitative findings? Please explain your answer.

Excerpt 6:

> *Dance is founded on the expression of concepts yet living outside of the limited vocabulary of language. A single gesture can and often times does hold more information and in a richer structure that an entire short story.*

In your discipline, are there concepts and knowledge that dance expresses better than language? Please explain and if appropriate, please use examples to illustrate.

PART 2

1. **The panel of experts described different procedures for using dance for disseminating research findings.**

*Would you agree that there could be a range of ways to approach this task, just as there are a various ways that people engage in a creative process to produce creative products? Please explain.

2. **All panel members agreed that dance is a useful means for disseminating research findings**.

   *How does using dance in research dissemination contribute to your particular discipline (e.g., education, health, dance, psychology)?

3. **A consensus emerged that using dance in research was time consuming, required expertise in dance, and involved ethical sensitivity to negotiate "dangerous emotional terrain." Please reflect and answer the following questions:**

   *What level of care and responsibility should researchers assume for the dancers disseminating the research findings and for the audience members viewing the dance?

   *If dance evokes emotions and visceral responses in audience members, are there special considerations for informed consent so that people are not forced to have experiences, feelings, and responses that they do not want?

   *Should researchers determine the readiness of audience members since some people may not be open to this medium and the experience it may evoke?

   *Do you think audience members' emotional responses arise from the dance itself or are influenced by the research topic as well?