THE IMPACT OF DANCE ON STUDENT LEARNING:
WITHIN THE CLASSROOM AND ACROSS THE CURRICULUM

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ABSTRACT

The purpose of this paper is to examine how dance supports student learning within the classroom and across the curriculum. This topic has the potential to further the prevalence of dance in public education, and can guide educators in the way they choose to instruct dance—whether as its own subject or as an integrative method. The history of dance education traces its rises and falls in public education, discusses government and organizational influences, and explains the rise of national dance standards. A critical review of the literature has brought forward four themes in efforts to understand how dance supports student learning, to include: student engagement, critical and creative thinking, self-concept, and dance as part of a more holistic method.

Student engagement and critical and creative thinking in dance are most often found through constructivist methods of learning. Dance education can affect self-concept both positively and negatively based on experience level, competitiveness, and teacher feedback. Utilizing dance as part of a more holistic approach to teaching can create increased motivation and engagement for students. Awareness and use of the findings imply that teachers can be successful in supporting student learning.
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CHAPTER ONE: INTRODUCTION

The danger in a narrow and prescriptive approach to learning and the curriculum is that we will yet again miss out on the opportunities to gain insight from what children bring to our schools and classrooms. They will remain persuaded that the thoughts, feelings, ideas and excitement of their inner lives and world are not for sharing with others—particularly adults. (Sullivan, 1997, pp. 169-170)

Introduction

Sullivan (1997) pointed out how students are given little opportunity to share their inner worlds with a narrow curriculum—I believe dance education allows students to share themselves with both the inside and outside worlds. The purpose of this paper is to examine the following question: How does dance education support students and their learning within the classroom and across the curriculum? First, I will provide background into my experiences with dance and education. I will speak to the current relevance of this topic in education. Based on current literature, I will then introduce common themes of how dance can be used to further the idea of interdisciplinary education. Finally, I will offer reasons and concessions as to how this topic will develop my own understanding of dance as an interdisciplinary tool. Through
discussion of the history, current literature, and implications for teaching, I will explore possible answers.

Rationale

My intentions with this research are for both personal and public reasons. I have been a dance student since the age of three. I have been teaching dance for the last eight years at private studios, as well as for a major dance team company. I have danced competitively, and I have danced as a performance artist. Through looking at dance as an art form I have realized the potential it has in providing students with a gateway to understanding the world and expressing themselves.

In my experience, I have only seen one or two public schools offering dance classes in each place I have lived. Dance seems to have been overlooked within the public school system. With the lack of jobs available for dance educators within public schools, I am forced to question why. Why is dance so often overlooked? How can I back up the importance of dance education to future employers, students, or other officials? What are the benefits of dance in supporting students with their learning? This last question is the real issue for me. I could list a number of reasons that I find dance education to be important to student learning, but I want to know what the literature is saying about this as evidence to my reasons. Not only will the answers discovered as to how dance supports student learning help me defend dance to others, but it
will clearly help to inform my practice as a dance educator. Knowing and understanding what the benefits (or non-benefits) of dance education are, will help me better support my dancers.

I find this research to be extremely relevant to the professional dance community surrounding me as well. For one, dance educators are in high competition with each other for careers within public education. Also, dance programs are typically cut due to lack of resources or being low on the priorities of school districts. My research question provides an entry point to defend the importance of dance. Not only can dance educators utilize the information regarding how dance education can support student learning, but core curricular teachers can use this information as well. Understanding the research on dance (and other art forms) supporting student learning could have the potential to help classroom teachers better support their own students and be a more likely candidate for dance educator positions.

I know I will find literature as to how dance can be unsupportive to students. I welcome this research because it will help me to guide the direction of my teaching. Such answers will help the dance education world to be more aware of potential issues that may arise with students.
Controversies

Many schools do not offer dance as a part of the curriculum. Many schools will cut dance or other art forms, if funding is low. Other schools may not have teachers with the proper qualifications or will to instruct dance (Lawson-Williams, 2007, p. 47). Unfortunately, there is a plethora of excuses for why dance is not offered in schools. By discussing such controversies we gain a better understanding of the arguments for and against dance education within public schooling.

There are many reasons why dance may not be offered within schools. Much of the reasoning has to do with lack of resources, current legislation, and little understanding of the benefits of dance education. I find all three of the latter reasons to be interrelated. With the present state of the economy and due to current legislation (such as the No Child Left Behind Act), public education has shifted most of its focus toward standardized high-stakes testing, with limited resources for studies other than math, reading, and writing (Oreck, 2006; Berube, 1999; Risner, 2007; Minton, 2007). Even though dance educators often know and recognize the importance of dance education, much of the public does not—not to mention, the benefits of dance are not well researched (Bonbright, 1999; Minton, 2007). Because it is not common knowledge as to how dance supports student learning and standardized testing is held on such a pedestal, there is little room for the arts in the curriculum
(Bonbright, 1999; Risner, 2007; Chapman, 2007). Dance and other art forms are often viewed as enrichment courses, not necessary curriculum (Chapman, 2007). Unfortunately, dance is often the lowest on the totem pole in comparison with other art forms.

With all of these controversies surrounding dance education, here are some of the arguments I have found for dance in how it supports student learning. Present research shows that dance may be one of the most effective ways to teach other content areas. Whether as part of a more holistic teaching approach, a way to engage and/or enhance critical thinking, an outlet for artistic expression and creativity (as well as exercise), an influence on self-concept, or as a means for enhancing student engagement, dance can not only assist students and teachers in providing a new gateway for learning, but it can also become a strong attraction for the community outside of school.

Dance education has the ability and flexibility to support student learning in a progressive fashion. Dance curriculum allows for exploration and awareness of social justice issues, it encourages and enhances critical and creative thinking, and it encourages student autonomy. According to Giguere (2005), there are five categories dance falls under: physical, social, emotional, cultural, and historical. If dance can explore all of these categories, imagine the opportunities for supportive teaching and multidisciplinary engagement.
Definitions

It is important to define the terminology I will utilize throughout this paper so as to keep readers informed as to how I will engage with the themes I have discovered in the literature. There are five specific themes that have become evident as answers to my research question: how can dance education support student learning in the classroom and across the curriculum in K-12 public education? There are other possible themes that could be explored, such as transcendence; however, these themes were highlighted in the bulk of my research: student engagement, critical thinking, creativity, self-concept, and dance as part of a more holistic teaching approach. Here I will explain reasons for how each topic will be important to my question.

Many of the journals I came across pointed to dance furthering student engagement or disengagement with content (whether the content be dance or other disciplines). When speaking of engagement or disengagement, Stinson (2007) defined these terms in one manner through the words “fun,” “not fun,” and “gratification.” Bond & Stinson (2001) spoke to engagement as superordinary experiences, or “experiences that go beyond the ordinary and everyday” (p. 55). Bond & Stinson (2001) also compared their definitions to other researchers’ definitions of what is to be called engagement for the purposes of this paper. These other researchers’ terminologies can be found in Chapter
Three. It is important to acknowledge that hopes for this research include engagement in dance crossing over being engaged with dance as its own discipline, as well as being engaged with dance for the purposes of interdisciplinary use.

Dance has been shown to increase critical and creative thinking abilities. Minton (2003) tested students’ critical and creative thinking by looking at their originality, fluency, abstractness, elaboration, and resistance. Keun & Hunt (2006) pointed out in their research on critical and creative thinking that risk taking leads to originality, and is part of the creative cycle.

Dance has proven to affect students’ self-concepts—both positively and negatively. When I speak to this research in Chapter Three, my focus will be more on the positive effects of dance on self-concept; however, I will acknowledge potential hazards to self-concept as I find they are worth noticing. Self-concept can be viewed as variables of one’s self, to include: physical self, behavior, family self, self-satisfaction, and social self (Trujillo, 1981). Vicario et al. (2001) noted that self-concept can be related to student efficacy, competitive and artistic dance, parent support, introversion versus extroversion, as well as potential harms of dance instruction. Cassady et al. (2004) also related self-concept to student confidence levels.
While I plan to be a teacher of dance, I hope to expand my own knowledge through collaborations with teachers of other content areas. I also find the idea of transfer seductive. If students can utilize the critical thinking and creativity they learn in dance class and transfer such ideas to math or science, they are reaching for a more holistic (or enriched) method of learning. If science and math students are able to have a dance teacher help them learn a more difficult concept in a creative way, they are not only expanding their minds, but gaining a heightened experience.

The previous four themes prove their worth to the importance of dance in public schooling. They also explain how dance can be used as an interdisciplinary tool in K-12 education. I will more thoroughly explain the current research regarding them in Chapter Three.

Limitations

I am well aware that I could point out ways to train teachers to be more prepared for educating students through the use of dance pedagogy, or that I could discuss the controversies of skepticism of the arts; however, I wish to make a case for the creativity dance implores in students and how it provides a framework for a more holistic approach to teaching all content areas. Finally, dance is not the end all and be all of enhancing education. There are many other art forms, as well as
methods, that can provide opportunities for a more holistic, and constructivist method of teaching.

I choose to focus on dance because I am biased in this research based upon my prior knowledge and previous experiences with it. I wish to utilize this research to discover and understand the true benefits of dance, in order to continue my fight (in a more informed manner) of keeping dance in the public school system. With this fight announced, I must point out that I am more likely to discuss the opportunities dance can provide than I am to offer concessions regarding the negative effects of dance.

Summary

In Chapter One I have introduced my research question. I have explained my goals and intentions for this paper, defined important terminology to gain understanding into the themes and ideas of my research, and introduced the themes I will be discussing. In Chapter Two I will provide a historical context regarding dance education in public schooling. In Chapter Three I will explore the current research regarding my topic. Chapter Four will cover what this research implies for teaching in the United States.

Just as current research is crucial to developing understanding about using dance as an interdisciplinary tool, so is the historical background. In Chapter Two I will explore historical connections to my
research question. The content I will explore includes the rise of arts education in public schooling, dance education within the United States, and history more specific to each theme founded. Here I will provide a context with which I will be able to more deeply answer my research question in Chapters Three and Four.
CHAPTER TWO: HISTORICAL BACKGROUND

Introduction

The process of becoming a dance educator has really engaged my curiosity regarding how dance education began and how far it has come. In Chapter One I introduced and discussed the controversies related to my research question: how can dance education support student learning within the classroom and across the curriculum. Dance education is often overlooked as an important part of the curriculum in supporting student learning due to a lack of resources, lack of research in regards to the benefits of dance education, and legislation is focused on other content areas such as math and language arts. Given this information, Chapter Two will help to provide a deeper look into how the controversies related to dance education have developed throughout history. It outlines the rise of arts education in public schooling and more specifically dance education within the United States.

The Rise of Arts Education in Today’s Public Schools

This section will cover how arts education has risen throughout history in the United States public education system. It shows the patterns of arts education waxing and waning in popularity within public schooling. This section speaks to a variety of organizations and government legislation that is directly related to interests in arts education.
About one hundred ago national public education and mandatory attendance were on the rise (Riddell, 2000, p. 1). As the education system has grown so has arts education, but not with great ease. With the rise of the ideals of progressivism in education led by John Dewey in the 1930s, arts education began its development. Dewey “considered the art experience to be the highest form of spiritual and moral experience” (Berube, 1999, p. 5). One landmark issue that created tension for arts education, was created in 1957 when the Soviet missile Sputnik was launched at the climax of the Cold War, causing a counterrevolution against progressivism to occur. The nation was anxious for a return to “core” curriculum and the arts were the first subject matter to be cut from schools.

Rediscovery of arts education interests was seen starting as early as 1963, when the Arts and Humanities Branch of the U.S. Office of Education initiated support for the performing arts as curriculum-based instruction, to include “historical perspectives, critical skills, and aesthetic issues” (Chapman, 2000, p. 1). In 1965 the Elementary and Secondary Education Act provided money for art programs. According to the New York Times, “In 1991 in New York City, an arts-rich community, two-thirds of the public schools had no arts instruction.” In the 1997 study, the “American Canvas: An Arts Legacy for Our Communities, by
the National Endowment for the Arts, concluded that ‘the arts do not have a secure place in the basic curriculum’ (Berube, pp. 3-4).

Within the last few decades, presidential influence has been placed upon the nation regarding arts education. In 1983, A Nation at Risk: The Imperative for Educational Reform, failed to mention the arts as core curricula. This was confronted in 1994 with the signed legislation of Goals 2000: Educate America Act, where Bill Clinton and Congress signed to include arts in the National Standards Core Curricula within K-12 education. As a result, voluntary standards were established within arts disciplines (Riddell, 2000, p. 2). The standards added to the National Standards were voluntary standards for teaching the four art disciplines—dance, music, theatre, and the visual arts. The National Standards for Dance Education accomplished numerous things to include validating “dance as a discrete discipline and partner with other core subjects in education” (Bonbright, 1999, p. 2). This may be one reason why some of Clinton’s budget was aimed at the states’ art curricula in hopes that the understanding of the arts, and their important relationship to educational reform, would develop. As Berube (1999) pointed out, “There is a correlation between the arts and academic achievement in the basic subjects” (p. 3).

As mentioned here, legislation clearly states that dance and other arts are their own subjects. Adding standards to the art disciplines
validates their importance. Why is dance still not available in many school systems? Looking at the history of dance and arts education helps educators understand the slow growth of dance education. The arts help along progressive ideals, which clearly concern some politicians and government officials. Bringing it back to the main question—how can dance education support student learning in the classroom and across the curriculum—it is more obvious than ever as to the importance behind the answers to this. The public needs to be informed about the benefits and support which dance education can provide to students and the community in order to increase its prevalence within public schooling.

Dance Education within the United States

This section of Chapter Two is more specific in focusing on how dance education has risen within the United States. This section will explore agencies, standards, and gaps within legislation, in order to show why it is more important than ever to explore the research question: how can dance support student learning within the classroom and across the curriculum? The relationship between the history of dance education and the research question is crucial to furthering the public understanding and progress of dance education within public schooling.

Formal dance education in the United States has been around since 1926, when the first dance major was founded at the University of
Wisconsin-Madison. University dance programs were mostly associated with physical education between then and the 1970s. In 1972, Title IX and the Equal Education Opportunity Act of 1974 lead to dance defining itself as arts related (Bonbright, 1999, p. 1).

In 1995 the Arts Education Partnership (AEP), was formulated to serve as a “catalyst, convener, and collaborator” in relations “with over 150 federal and state agencies, arts and education organizations, businesses and corporations, and philanthropic foundations. AEP’s motto is ‘Good schools require the arts’” (Bonbright, 1999, 3). The AEP assists their partners with accessing government funding to help build arts education programs through Goals 2000 money. There are numerous other agencies available to arts education advocates to assist with access to resources to build arts programs across the United States. This is important because it shows that dance is becoming more and more relevant in public education.

The National Dance Education Association (NDEA) was formed in December of 1997 to support the focus of the importance of dance in the human experience in education. According to the current executive director, Jane M. Bonbright (1999), “With the aid of federal funding and the standards movement, dance has emerged as discrete discipline in education that is aligned with the arts and considered important to core
curricula. The National Standards in Arts Education has been adopted or adapted in almost all fifty states across America” (p. 2).

Even though the Standards have been adopted and dance is becoming more relevant, there is still a wide gap between the goal of art as core curricula and the actual practice of such. According to Bonbright (1999), “Arts education in many of the nation’s 15,000 school districts remains impoverished or non-existent, and dance education is the least available art form in educational curricula” (p. 4). Dance education issues also worth noting, are the lack of accountability held for teachers regarding the standards, the lack of proper dance facilities in schools, the lack of jobs available, and the lack of properly trained dance educators. As Doug Risner (2007) noted, “Legislation alone cannot establish or provide equal access to dance education in the schools. Although K-12 dance education initiatives during the last decade made profound progress, curricular equity and access problems continue to be significant obstacles” (p. 18).

In order to address some of these significant obstacles, Risner (2007) suggested many ideas in which dance educators can strive to make a place for the field of dance. One suggestion made was to: Produce collaborative projects. Like new partnerships, planning and implementing collaborative projects widens dance educators’ lens to include a larger, more common ground and allows for
greater inclusion. Sharing expertise, resources, and audiences in joint ventures builds an important foundation for the overall status of dance in the wider community. (p. 20) So while dance education is slowly progressing towards prominence within the core curricula of the American education system, there is still work to do.

As Bonbright (1999) pointed out, even though dance is making substantial progress in today's world, dance education is still the least recognized art form within public schooling. As Risner (2007) discussed, it is up to dance educators to progress and make a place for dance education within public schooling. These points add to the urgency and necessity behind understanding how students are supported in their learning through dance within a dance classroom or across the curriculum. By recognizing the benefits of dance publicly, there may be more opportunity for dance education as core curricula within schools. As dance education becomes more prevalent within schools, the higher the chance of more substantial support to student learning.

Summary

In Chapters One and Two I have examined the controversies and history behind dance education and its impact upon schooling. In Chapter Three I will begin to examine the more current literature regarding dance education and how it can be utilized to support student learning within the dance classroom and across the curriculum. In
Chapter Four I will share what the literature implies for teaching. In order to focus my question further, I have come up with a few other questions to guide my research: What are the benefits of dance education to students? What aspects of dance education provide appeal to students, teachers, schools, and other community members? In the next chapter I will critically review the current literature to help answer these questions, as well as my main research question: how can dance education support student learning within the dance classroom and across the curriculum?
CHAPTER THREE: A CRITICAL REVIEW OF THE LITERATURE

Outline and Rationale

Chapter One introduced the research question and the controversies surrounding it: how can dance education support student learning within the classroom and across the curriculum? Dance education is often overlooked as an important part of the curriculum in supporting student learning due to a lack of resources, lack of research in regards to the benefits of dance education, and legislation is focused on other content areas such as math and language arts. Not only is dance left out of being its own curricular area, but many teachers overlook using it within their content areas due to lack of time, resources, or knowledge of how it will help support student learning.

Given this information, Chapter Two provided a deeper look into the history behind these issues. It outlined the rise of arts education in public schooling and dance education within the United States. It stated that arts education saw its demise upon the launching of the Soviet missile Sputnik, where the United States was anxious to return to “core” curriculum and cut the arts. Even though arts education is on the rise again, research is necessary to explain its importance. Chapter Two also discussed how dance education is beginning to hold equal importance to that of other art forms. While it has the same acknowledgements from the government and legislation, its presence is still missed in numerous
schools across America. The chapter finally pointed out that it is up to
dance educators to expose how dance can support student learning in
order to make way for dance educations’ future within public schooling.
Chapter Three will critically review recent literature regarding the ways in
which dance can positively impact student learning in K-12 education.
The research will describe the ways creative dance engages students,
enhances their critical thinking and creativity, impacts their self-concept,
and how it can be used as part of a more holistic approach in teaching
other content.

This chapter will review the current literature relating to movement
and dance in education and how they affect the learning process. I will
examine many arguments that support the inclusion of movement across
the curriculum. I did not find any studies that directly opposed it, but I
will discuss some of the obstacles and/or challenges that I examined. At
first, each theme will be examined individually. Chapter Four will include
more of an integrative examination of common themes, ideas, and
arguments found within the literature.

Engagement

Abraham Maslow, a pioneer of humanistic psychology, created the
concept of “peak experience.” The point of this concept was for people to
think of the most extraordinary moments in their lives, and try to think
of what differentiates those moments from other, not as special,
moments. In other words, what causes something to be more engaging than something else? The following critical reviews discuss how dance and engagement are interrelated. The researchers (Stinson, 1997; Bond & Stinson, 2001; Bond & Stinson, 2007; Critien & Ollis, 2006) discovered how dance can be engaging to students.

Student engagement in relation to dance education and movement is analyzed in this section. Stinson (1997) begins this section because it was her earliest study chronologically in relation to engagement, and this study is followed by Bond & Stinson’s studies (2001 & 2007). In Stinson’s (1997) solo study, she inquired about what causes engagement, or non-engagement, in dance. This work was furthered through her work with Bond (2001 & 2007) in which they explored the nature and meaning of young people’s experiences in dance, as well as what engagement is, and what causes or inhibits it. Critien & Ollis’ (2006) study explored what engages professional dancers about dance—their goal was to understand what processes are associated with the development of professionalism and expertise. This literature therefore speaks to the developing engagement of students as they progress through dance education.

Stinson (1997) conducted an interpretive study on middle school students inquiring about what causes their engagement, or non-engagement, in dance. Among three middle schools, Stinson served as a
participant observer in one class each week per school. The researcher knew all three teachers at each school prior to conducting the study, although this did not seem to have an effect on the results. While Stinson pointed out three schools were utilized in this study, she made few references to the importance of the different schools. While she had a fairly equal selection of African American students and White students, she acknowledged that she heard some voices more than others. She also realized that there were still other cultural backgrounds missing from her research. The description given during the time of her presence and the ways in which she interacted with the students were very clearly described in the literature. Stinson has a strong background in dance education and, in classic interpretive research, made sure to share how she saw the results.

Stinson’s reasoning for conducting an interpretive study was that it would be very difficult to control a single variable related to student engagement; therefore, her study brought forward numerous themes observed creating engagement or disengagement for student participants. Stinson shared concessions and reasoning for her methodology. She acknowledged her presence changed the research setting. She pointed out that she constantly questioned her own assumptions based on her research due to her prior dance lens. Throughout the literature, Stinson provided moments of progressive subjectivity where she reflected upon
her lens as a dancer and dance educator, pointing out differences from her assumptions and what she was actually observing. This added to the credibility of the study. She also shared that she did not standardize the interview questions in order to provide the participants with actively engaged listening.

Upon analyzing her numerous interviews with the participants, she shared the following themes: the meaning of fun, fun as social interaction, fun as “making stuff up” (p. 54), fun as movement, fun as interaction with the dance teacher, learning as fun, not fun, stress release, focus and concentration, self gratification through dance, freedom, and transcendence. She specifically spoke to each theme, offering reasons that each theme may or may not have caused engagement amongst the participants.

Regarding Stinson’s methodology, she stayed for the length of the courses at each school; however, did not provide information as to if she felt she had been there long enough to observe patterns which could affect the credibility of the study. Even though this information was not provided, it seems that enough student participants answered in similar ways that her research had uprooted patterns in the answers. Stinson did not mention any instances of peer debriefing to verify her findings, although she did triangulate by comparing her research to prior literature including Mihaly Csikszentmihalyi’s “flow,” as well as
references to Nel Noddings, Elizabeth Hirschman, and David Purpel. Stinson did not provide any evidence of member checks in her writing and reflections, perhaps affecting the credibility of the paper.

Bond & Stinson (2001) conducted a phenomenological study examining the nature and meaning of young people’s experiences in dance. This study drew on multimodal research from numerous data sources. Participants (n≈600) included children ages 3 to 17 from Australia, Canada, the United Kingdom, Saipan, and numerous states from the United States. There was obviously a great deal of diversity within the participants, yet there are still numerous countries and cultures not represented in this sample. Also, the dance forms studied were mainly of Western form, which is a limitation of the study in transferring this study across all children of the world. While the authors made no claims as to this study being perfect, they did deal with an extremely large quantity of participants, adding to the study’s transferability.

The authors began this study by sorting the data collected into the following categories: competence, environment, arousal, self, and the unnamed. The unnamed category had to do with “experiences that go beyond the ordinary and everyday” (p. 55). They eventually renamed the unnamed category to “The Superordinary.” This category was the focus of this specific article as the authors wanted to understand what meanings
were created for the participants through creative dance. One concession regarding the large amounts of data that were placed into this category was that there was disagreement over where certain data belonged in the subcategories. While the data may not fit entirely in one subcategory, or it may belong in more than one subcategory, the overall placements by the researchers still generate the overall pictures aimed for.

One goal of the researchers was to place the research from the children’s perspective. The findings were therefore created by the participants with triangulation and member checks occurring within studies, as well as amongst studies, thus adding to the credibility of this meta-analysis. The following themes were extracted from all of the data, in regards to the superordinary: bodily resonance, just having to dance, freedom, being the real person inside, forgetting the outside world, another place/time, magical or spiritual dimensions, and a category that was unable to be classified. Generally, all of these categories speak to causes of engagement in the participants and their identities as dancers.

The authors next turned to literature to verify the results they found. The following terminology was seen in the literature, verifying the results:

- Dewey’s “imaginative unification”
- Maslow’s “peak experience”
- Csikszentmihalyi’s “flow”
- Hirschman’s “aesthetic transcendence”
- Turner’s “communitas”
- Coleman’s “super-rationalism”
- Piaget’s “primitive consciousness”
- Novack’s “unity between dance and nature”
- Hanna’s “superordinary functions of dance”
- Sparshott’s “self-engaged-in-this-now”
- Linton’s “extrasensory perception”

Bond & Stinson (2001) pointed out that,

Despite the existence of an extensive multidisciplinary literature base both within and outside of dance, this study is one of few attempting to bring the voices and images of young people into this discourse on the nature and function of the superordinary, and shed light on how they experience such moments in dance and the meaning they make of them. (p. 76)

Bond and Stinson (2007) drew from multi-modal research methods collected individually, to create a phenomenological research analysis. Bond’s research came from Australia and focused on young children with and without disabilities. Stinson’s research came from North Carolina and focused on middle and high school students. Together they collected multi-modal data from over 700 students. The research questions the authors utilized to guide their journal article encapsulated the following:
1. Does the term engagement have to mean either work or play? 2. What causes young people to work hard and be engaged in dance? 3. What inhibits hard work or engagement in dance?

As part of a larger scale study in which the authors had been trying to “understand whether there might be any common meanings of dance to young people that cross over demographic and other differences” (p. 156), Bond and Stinson sorted and resorted data in order to gain understanding into young peoples’ engagement or disengagement with dance. Data collection included a variety of sources: videos, drawings, interviews, etc. The authors noted that “we know that we do not have, and can never have, the ‘whole picture’ of what dance means to any one child or collection of young people. Because it is constantly in the process of creation, meaning is always partial” (p. 157). They recognized that not all possible meanings and causes of engagement, or disengagement, are outlined in their research. They aimed to provide discoveries of meaning and share a broad range of themes causal of student engagement or disengagement. The researchers also acknowledged that while they drew from a diverse range of sources, there are still numerous populations missing, not to mention all students were exposed to Western dance forms. Most of the research utilized in this chapter pertains to Western dance forms, specifically modern dance; therefore, contextually this study fits with other research as noted.
Bond and Stinson shared numerous thematic analyses on working and not working in dance. Themes derived regarding obstacles to hard work include fear, lack of confidence, and dislike of hard work. Some students perceived work in dance to be too difficult or too easy. Some feared they were not good enough and displayed anxiety in class. Experiences of high engagement included the majority of the rest of the data collected. Students enjoy the constant work of dance, are intrinsically motivated, and the consistency of self-disciplinary practices. Dance allows students to make mistakes and continue to work to get better. Students love dancing. For some it gives them something to identify with, for others it's an emotional release. Many young students are motivated by the challenge and physicality of dance. Movement can be an outlet for creativity and self-expression. Also, students acknowledge that they are doing their best and enjoy self-assessment. When many students acknowledge they are doing well, their confidence level boosts which can be pleasurable and motivational. Just as this is the case, pleasure in movement can motivate students for mastery of movement. The last idea shared by the authors is that many students feel motivated and accomplished by having an audience or teacher watch them and appreciate their work.

While all of the latter findings seem logical, some students implied dichotomies within the research. For example, some students enjoyed
working in dance class, while other students enjoyed feeling like they didn’t have to do work in class. The authors needed to be careful here to point out such dichotomies in the research as they were unclear about the context and participants involved. The authors next turned to comparing their research with other current literature. In regards to motivation, they spoke to Csikszentmihalyi’s “flow,” links with motivation and dance performance, music, challenge, feedback, and enjoyment. Bond and Stinson pointed out that young people are reaching for autonomy while schools are aiming for more control. Dance provides an outlet for autonomy.

Other research comparisons pointed to student attribution to success and failure within schools, including ability, effort, task difficulty, and luck. Bond and Stinson stated through empirical evidence that many students see ability as fixed, rather than ability as a result of growth. Dance provides students with room to gain in ability. They also discussed current brain research. The following three points based upon their research compared with current literature show options for causing,

The commitment to hard work necessary for success in dance:

- Emotional connection/personal interest/positive affect (I love to dance!)
• Challenge matched by skill, and a belief that effort matters (*I like a challenge!*)

• A sense of autonomy and personal control, especially in setting standards and assessing the degree to which they have been met (*It’s like I’m my own boss. I’m good at it, and/or I’m getting better*). (p. 176)

   Overall, this study exuded credibility and transferability related to Western dance forms. The authors shared multiple perspectives and compared findings with each other. Data analysis procedures could have been clearer in description but still provided readers with a genuine feeling for what the methods included. The authors shared ways in which data collection and analysis were audited showing that the results are confirmable.

   On a final note regarding Bond and Stinson’s work, the authors continue to compare their work with that of other researchers. They found that the next phase of their study should include exploring “some of the supportive and non-supportive conditions (social and environmental influences) necessary for engagement in dance” (p. 177). They acknowledged the importance of dance education in public schooling and were excited by the voices calling for inclusion.

   Critien & Ollis (2006) conducted a study in order to discover how professional dancers become engaged with their work as artists. The researchers’ goal was to understand the processes associated with the
development of professionalism and expertise in dancers. Through researching previous models of educating students in the field of dance, the researchers discovered a lack of current literature regarding models unique to dance. Participants (N=15) were utilized from five different European nationalities. While the participants were not students—as in other studies—the participants were all experienced dance professionals because the researchers felt they would, Reveal more information regarding the overall skills needed in developing as a dancer in the professional world of dance companies, as well as to identify the loopholes that exist in the process of preparation and education that lead to an expert career in dance. (Critien & Ollis, p. 182)

The purpose of this research was for the authors to create a study focusing on technique, creativity, aesthetics, and the past and future of dance education through examining reasons for engagement in professional dance. The researchers went on three trips to theaters and/or training institutes of each dancer. Informal interviews of dancers and their directors, and observation of professional companies’ rehearsals, performance run-throughs, and actual performances, were all utilized as data collection methods. The interviews conducted inquired about each performer’s dance background, personal expressive focus, training, role of choreographer, other dancers, and general work
environment within the company, and personal life. Based on Strauss and Corbin’s (1998) version of grounded theory, the results were analyzed.

The results revealed the following themes regarding engagement in dance: preparation, performance, and reflection. The authors suggested dance prepares students for idea conception, and through rehearsal and practice for professionalism. Professionals are engaged by both technical aspects of practice and expressive aspects. Professionals in dance reach for full engagement with the work they are doing through curious inquiry. They ask questions regarding the concepts of the pieces and the concepts behind the movement choices. Finally, professional performers are trained to practice in a reflective manner. Other engaging aspects for professional dancers include: warm-up, amount of sleep, nutritional health, lifestyles, interaction with choreographers, peer dynamics and communal belief, organizational efficiency, performance, personal engaging factor, improvisational ability, dynamics among dancers, audience interaction, and stage crew efficiency. In analyzing aspects of dance that were engaging to professional dancers, the researchers also found that dancers learned to self-judge, take correction, share information with colleagues, understand the audience, and engage with multiple parts of their selves (individual self, relational self, and collective self).
While staying true to Strauss and Corbin’s (1998) grounded theory, the researchers’ compared their findings with previous literature. Based on the research conducted, the following themes were derived: deliberate practice, deliberate experience, transferability, and the self. The authors pointed out that, “overall it appears that developing expertise in professional dance requires successful negotiation of multiple levels of self and environment in the three phases of preparation, performance and reflection” (p. 197).

The authors developed a grounded theory of talent development for dancers as artists and performers. Based on the numerous comparisons with prior literature alone, the findings are believable adding to the researchers’ credibility; however, the study was opinion based with a seemingly small number of participants. The authors provided quite a bit of description regarding their theoretical positions based on prior literature. The authors did not offer very many concessions in regards to validity of the study. One strength of the study is the way in which the authors chose the participants to share their professional backgrounds. The study does seem to confirm what high school students find engaging about dance.

While all four studies had different searches regarding engagement occurring, all four studies found similar themes as to how dance education supports student engagement or disengagement. One pattern
that arose with the four studies is that the researchers did not come up with a clear definition of engagement. In other words, engagement can be many things for different students.

Stinson (1997) alluded to engagement being about the amount of “fun” a student has with the subject. She also pointed out ways in which students are engaged: focus and concentration, self gratification through dance, freedom, and transcendence. Bond & Stinson (2001) discussed the idea of superordinary experiences in relation to dance. These superordinary ideas are similar to those of Stinson’s (1997) in relation to focus and concentration (or forgetting the outside world), freedom, self gratification (just having to dance), and magical and spiritual dimensions (transcendence). Bond & Stinson (2007) attempted to provide possible definitions for the words engagement and disengagement. They include fear, lack of confidence, and dislike of hard or easy work, with disengagement in dance. On the contrary, Bond & Stinson (2007) also stated that many students find engagement with hard or easy work. They stated that engagement in dance occurs when students have: an emotional or personal connection with dance, when students feel challenged to put forth effort, and a sense of autonomy. These three themes seem to add up all of Bond & Stinson’s previous research.

Critien & Ollis (2006) were interested in the processes that led to professional dancers being engaged in dance. What connects Critien &
Ollis’ (2006) work with that of Bond & Stinson’s (1997, 2001 & 2007), is that they found that engagement in dance occurs due to preparation, performance, and reflection. If the three latter categories were to be broken down, Bond & Stinson’s (1997, 2001 & 2007) work would fall under these categories.

Many of the same themes continue to arise in these studies regarding engagement or disengagement: group work and social interaction, creativity and composition, a sense of accomplishment, freedom, escapism, self-expression, performance, and professionalism all play a role in student engagement. With regards to the question of how dance can support student learning, these results imply that dance has the capability to stimulate student engagement. In the next section, I will examine more closely how critical thinking and creativity interact with dance.

Critical Thinking & Creativity

Critical thinking and creativity were originally two separate sections within Chapter 3; however, the two are so interrelated in dance education that it seemed necessary to merge the two themes into one section. The literature presented in this section speaks to aspects of teaching and learning in dance that will engage critical and creative thinking to develop content understanding in students.
Critical and creative thinking can be broken down into two even smaller sections regarding how teachers can engage students’ critical and creative thinking skills, and how students utilize critical and creative thinking. Chen (2001) studied how expert teachers promote students’ conceptual understanding in creative dance and how they engage students’ critical thinking. Chappell (2007) discussed how to approach teaching dance for creativity. Likewise, Keun & Hunt (2006) explored the effects of teaching creative dance on creativity and critical thinking in young students; whereas, Minton (2007) observed what happens to students thinking during creative dance composition. Broadbent (2004) explored how dance develops or enhances children’s creative, aesthetic and spiritual experiences. Manley & Wilson (1980) and Minton (2003) both studied creative thinking in dance versus non-dance students. Finally, Chen & Cone (2003) explored how students utilize critical thinking while dancing and moving. It is important to note that Chen & Cone’s (2003) research was an extension of Chen’s (2001) initial research.

Chen (2001) conducted qualitative research questioning how expert teachers promote students’ conceptual understanding in creative dance and how they engage students’ critical thinking skills throughout the learning process of creative dance. Through videotapes, audiotapes, student and teacher interviews, and document collection, information
was obtained over 16 dance lessons. Participants (n=162) ranged from
grades K-3 in Kendall Park, NJ. The students voluntarily participated in
this study with informed consent. Cultural and socioeconomic diversity
was made evident in the literature allowing the research to be more
credible and transferable. The physical education classes met twice a
week. The creative dance teacher was an expert. She had more than 20
years of experience teaching dance, had presented at numerous creative
dance workshops, has been an author on creative dance, and received
NDA Dance Educator of the Year in 1998.

While utilizing constructivist methods for teaching, dance and
movement can be tools for stimulating critical and creative thinking.
Three themes emerged describing how the teacher used constructivist-
oriented teaching strategies to engage students’ critical thinking skills in
learning creative dance. These themes include: relating students’
knowledge and ideas to lessons to spark dispositions, encouraging and
facilitating students’ inquiries and creative products, and engaging
students’ metacognition in refining the quality of dance movement. As
Chen pointed out, “The findings in this study suggest that having
students draw on their prior knowledge and using relevant information
evoked their desire to think flexibly and divergently” (p.374). Chen also
pointed out that this does not immediately mean that students will
engage in critical thinking skills. He suggested that teachers take on the role of scaffolders for students in engaging thoughtful conversation.

Chen utilized a strong research base prior to and during the performance of this study creating dependability. Adding to his credibility, Chen utilized triangulation through the various ways in which he recorded data, as well as member checks. Chen made sure to meet with the teacher twice a week. An area where this study could have been improved was a discussion of the obstacles Chen may have encountered.

Chappell (2007) presented a case study examining the conceptions and approaches utilized by three dance teachers. In other words, this study focused more on the pedagogical practices used with late primary age children, rather than the students being the participants themselves. Chappell reported on the spectra of approaches available when teaching dance for creativity, pointing to the “dilemma of ‘balancing personal/collective voice and craft/compositional knowledge...’” I will use Chappell’s study, alongside supporting research, to show the ways in which dance can be taught for creativity.

Chappell’s pedagogical spectra in teaching for creativity, presented a dichotomy between personal/collective voice and craft/compositional knowledge. Figure 1.1 explains the two end points of the spectra of approach. The spectra points to either side of teaching ideals regarding the creative sources, classroom management techniques, and
performance tasks. Based upon informed research, Chappell argued that finding balance along the spectra is of the utmost importance for teaching creativity, and that leaning toward either side will still achieve the same goal of enhanced creativity based on the classroom environment and circumstance (Chappell, 2003; Smith-Autard, 2002).
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<th>Personal/Collective Voice</th>
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Creative Source: Inside Out or Outside In

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<td>- Stimuli teacher/child derived, relatively unknown outcome</td>
<td>- Stimuli teacher derived—relatively known outcome</td>
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<td>- Within creating tasks—child initiated</td>
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Proximity & Intervention

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<td>- Reactive teacher intervention</td>
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Spectra of Task Structures

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<th>Structures for Tight</th>
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Figure 1.1 Teaching for creativity: spectra of approach (Chappell, 2007)

Classroom environment and circumstance did play an important role for Chappell’s three subjects—Michael, Kate, and Amanda—in where they fell upon the spectra. Michael was working with children who had very little experience with creative dance and therefore used an approach that included a “gradual sharing of responsibility.” Kate’s group of students “already shared responsibility for creative activity,” because the students were more experienced. Finally, Amanda “shared responsibility almost immediately” with the students because one of her objectives was risk-taking, even though the students were inexperienced. Even though the lack of student experience seems to be similar to Michael’s students, Chappell noted that Amanda’s students were highly motivated and supported. Amanda and Kate seemed to have similar experiences and are more left-sided along the spectra, whereas Michael was more right-sided. As Chappell pointed out, “At both ends of the spectrum the dance teachers were therefore sharing responsibility for creative activities with
the children, but in different ways” (13). Chappell’s work pointed to the minimal amount of subjects utilized while exploring the spectra; however, Chappell did provide supporting research studies to back-up the idea that balance along the spectra and classroom circumstance enhances student creativity.

Keun & Hunt (2006) conducted qualitative research to examine the effects of dance education on creativity and critical thinking skills of 7 year olds in Singapore. The findings showed the students to have increased proficiency in creative thinking and problem solving through the utilization of creative dance. The participants (n=39) were composed of approximately equal amounts of boys and girls. The researchers shared conducting of dance lessons in which students played with a coral reef theme. This allowed them to play in a fantasy world through dance and movement. Five sessions were videotaped.

The following skills were taught to the participants to assist in their dance creations: personal and general space, moving and freezing, levels, opening and closing, and fast and slow tempo. During each session, students were observed in their creative processes through responses to teacher cues. During the last session, students were divided into groups and performed dances with minimal teacher cues. While some students observed other groups dancing, they were required to record/illustrate their reactions to the dances. The authors’ noted that,
“in each of the lessons there were instances of children’s creative thinking and problem-solving abilities” (p.45). They also noted improvement in the participants’ language skills through illustrating their reactions to the dance experiences. The authors’ shared the following other results and compared them with the following literature:

- More risk-taking was present in the movements as the lessons progressed. Beetlestone (1998) and Craft (2000) referred to risk taking as part of the creative cycle. Keun & Hunt (2006) pointed out that risk taking leads to original ideas; although, Tegano et al. (1991) said that the idea may only be original for the individual child, as it is about the creative process that makes the idea original (or new) to a child.

- Many of the students’ portrayed ownership over repeated movements. Beetlestone (1998) said that ownership is another part of the creative process and is cause for motivation in children.

- The authors’ noted that many of the children put immense amounts of focus and energy into their performances. They compared this to Torrance (1995) who stated that creativity “contributes to the pleasure and welfare of the children” (p. 47).

- While the students were taught the same skill acquisition and had common structures for their dances, each group still exuded creative ideas and notable differences from the others.
The authors’ final conclusion stated, “Given a supportive environment, structured curriculum and knowledgeable teachers, Primary One students were seen to demonstrate creative thinking and problem-solving skills in the form of original body sculptures, innovative pathways, individual movement patterns and dance composition” (p.53). They went on to compare this result to other current literature as a form of triangulation adding to the credibility of the study. The researchers’ did not utilize member checks lessening the credibility of the study. They acknowledged the lack of member checks as a limitation of the study, as their biases may have been at work. Because the results were supported by other literature, the study is confirmable. Keun & Hunt also found that creative dance stimulates multiple intelligences, in specifically, the bodily kinesthetic intelligence. Other intelligences found include: linguistic, music, spatial, interpersonal, and intrapersonal.

Minton (2007) conducted ethnographic and case study research regarding creative dance composition at the middle school level. Observations were made to find out what happens during creative dance composition amongst the participants. Students participated in nine weeks of 30 minute dance class periods. The classes consisted of technique and dance compositional work. The questions guiding the research were, “how the students went about the process of making a dance and their reactions to this process” (p. 107). The participants
(n=29) consisted of two middle school dance classes at a private school, enrolled on an elective basis. All of the students were female and were mostly Caucasian. Although there were 29 participants in the dance classes, only 11 participants’ parents consented to partaking in the study, therefore only 11 participants were utilized for observation by the researcher, and interviews in the questionnaire format. Two questionnaires were administered, once in May toward the end of the study, and another one two weeks later. The second questionnaire was administered giving students the chance to change answers on the first and to focus some of the questions more than the first time.

Not only was the research conducted through observations and questionnaires, but Minton also utilized the teacher’s syllabus and lesson plans to formulate the results. Through using these methods, Minton practiced triangulation adding to the credibility of her study. Minton also utilized member checks to further enhance credibility of the study, through having the instructor who taught the class read over the literature. Finally, Minton compared her findings with that of other studies making the results appear confirmable.

The lessons asked students to work in groups, pick out music, compose dance pieces, communicate amongst each other and with the teacher, and evaluate and re-evaluate their work. The participants were divided into groups by the teacher. Each group was provided with the
choice of utilized contemporary vocal, classical, or hip-hop music. All of the groups chose to work with hip-hop music. Various forms of communication occurred in group work composition. It was mostly evident through facial expressions that the students were working individually to be creative. The teacher moved between the groups to provide feedback and encourage students. The syllabus provided expectations of the students in how they were to interact with each other and participate in the class. Evaluations of compositional work were done through questions and discussion amongst the class about their likes and dislikes. All of this was observed by the researcher and through the syllabus and lesson plans.

The students’ questionnaires provided insight into each of these aspects of the research as well. They felt ownership over the dances because they were able to choreograph the dances themselves, rather than the teacher. They identified personal talents and the craft of choreography through practicing it in groups. The dances allowed for them to express themselves, interact with an audience, and interact with their peer groups. Some students did not like the teacher placing them in groups as they would have rather worked with their friends or with students who were interested in the same product as themselves. Other students were glad to work with new groups as a way of meeting new people, enhancing their socialization. One critique of the work is that the
students were unsure of their roles within the groups, and were unsure as to which role(s) to take on.

In comparing the sources of observer, students, and other literature, the research was interpreted for conclusions. Because the students felt ownership over their work, they felt their opinion mattered, enhancing their self-esteem. This was supported by Riley (1984) and Minton (2001). Through discovery of their personal talents, students discovered their increased abilities to think creatively. This was supported by Jay (1995), Mentzer & Boswell (1995), Kim (2002), and Minton (2003). Minton (2007) was also able to compare her findings regarding choreography with Stinson’s (1993) work, in which students began to understand choreography as a craft better. Students felt a certain freedom through their creations, causing a strong sense of engagement. Finally, the students were asked to create a dance in response to a problem presented by the teacher, thus asking the students to engage in creative thinking while composing.

Broadbent (2004) conducted a qualitative study questioning whether schools are providing opportunities which will develop and enhance children’s creative, aesthetic, and spiritual experiences. This study was or is a work-in-progress. Six dance sessions were held on themes related to the Creation story from the Bible. Each child kept a dance journal in which they recorded their feelings and thoughts from
each lesson of instruction received. The students wrote poetry, interviewed with the researcher, and were videotaped.

The study began in the summer of 2002 in a Liverpool Roman Catholic primary school. Such a setting is cause for concern in regards to being transferable to youth of all religious and socioeconomic backgrounds. The researcher noted a definitive progression in the acquisition of the student’s movement vocabulary, as well as clearer articulation of abstract ideas and concepts through movement. Broadbent pointed out that there was evidence of increased creativity through “the children’s attempts to connect abstract ideas with their own lived experience and level of conceptual understanding” (p. 103).

Broadbent’s study has a strong basis in research literature. The author participated (and might still be participating) in prolonged and substantial engagement enhancing the credibility of the study. Maturation has obviously occurred in the study as the students have physically become stronger and more coordinated, and emotionally have grown through their reflective processes both while dancing and writing. As the study is incomplete, it is lacking many of the qualities allowing for it to be credible. I would like to see member checks and peer debriefing occur. The issue with generalizing this research is the cultural context of Liverpool is not clearly defined in the literature; therefore, it is a challenge to say this situation will be similar in the United States. I will
say I find the research transferable in relation to the other studies in this section as critical thinking was engaged through dance.

Manley & Wilson (1980) conducted correlational research designed to study the effects of dance composition on student anxiety. Numerous findings were a result of this study to include: dance students have creative attributes which non-dance students are less likely to have and there is a correlation between the length of time spent on compositional work and the worth of the product. Participants (n=35) were female volunteer students at the university level. Seventeen students were non-dance majors and eighteen were dance majors, ranging in grade levels between freshman and seniors at York University.

Testing instruments included the Welsh Figure Preference Test to measure creative potential, the Manley-Wilson Dance Analysis Inventory to “attempt to measure elements of a student’s creative potential in dance movement,” the length of time was recorded for students performing a composition, the “Endler-Okada S-R Inventory of General Trait Anxiousness and the Present Affective Reactions Questionnaire (PARQ) to measure trait and situational anxiety respectively” (p.14). One week prior to a dance movement session, the participants were given the S-R Inventory, the PARK and the WFPT in a restful manner. Each participant individually performed in the dance sessions. As they each arrived to the session, they were given a picture and a poem, and allotted
twenty minutes to create a dance compositional piece to perform for the judges. One minute prior to the performance, each dancer was provided with the PARQ form again, to measure situational anxiety. One minute after the presentation the PARQ was re-administered. Students had no prior knowledge of the tasks which occurred at the sessions.

T-tests were utilized to analyze the performance and anxiety scores of dance majors versus non-dance majors. Significance was only measured if at the 0.05 level. Both dance and non-dance majors’ scores were significant in comparison to the norm for creative potential. Manley and Wilson (1980) pointed out that this may have been caused by dance being taken out of choice at the collegiate level, therefore causing interest in the subject matter, causing students to care more about the investment of their time, money, etc. The authors found that three behaviors are attributed to the processes of composition: “openness of the initial structure and content of the problem; exploration activity shown during the solution of the problem; and changes introduced in the structure and content of the problem (Getzels and Csikszentmihalyi 1976:90)” (p.19). Because significantly more time was taken during the improvisation section of the session by dance majors, the authors concluded that the longer amount of time spent on the improvisation, the more worth of the product was found. This is evident in the judges’ scores, indicating relation between the cognitive perception of creativity
and improvisational work. Also related to time, the dance majors had significantly shorter compositional work than the non-dance majors. The researchers noted that this may be due to dance majors being able to more effectively and efficiently formulate conceptual ideas. Manley and Wilson pointed out that further research could be done to regarding time use and its relationship to a dancer’s problem-solving skills.

I have chosen not to mention the results in regards to anxiety as they are not relevant to this section on creativity. While the dance students were older than the participants I prefer to look at specific to K-12 education, the results can be generalized to younger students. This is due to dance classes generally being utilized as elective course work, in which students choose to be in the classes. Also, the study is objective in that the research dance session was conducted by judges outside of the researchers. The researchers ensured that the judges were on a similar page in how scoring was to be done by doing a pre-assessment. An issue I see with the research is that the conditions were not that realistic. The dance session was held after the school year was out and the participants were volunteers.

Minton (2003) conducted a quantitative study comparing creative thinking abilities of dance students to non-dance students. Participants were high school students (n=286) at six different high schools. Utilizing a Torrance Test of Creative Thinking (TTCT), pre- and post-tests were
given. One limitation of the participants includes the instruction differed based on the teachers’ dance backgrounds. Another limitation noted by the author is that some of the dance students were taking dance classes outside of school, affecting the credibility of the study.

The main themes tested of the students included originality, fluency, abstractness, elaboration, and resistance. Testing was kept the exact same for all groups of participants. Significant differences were found for higher originality and abstractness in dance students. Based on the researcher’s analysis, the author stated, “it is possible that participation in dance could have a positive effect on these two aspects of creative thinking” (p.45). This article then suggests that practicing creativity in dance allows students to be more original and abstract in their thinking.

Chen and Cone (2003) conducted quantitative research inquiring as to how children use critical thinking skills in their movement actions during creative dance lessons. This article is an extension of the previous one by Weiyun Chen, therefore the methodology was the same. There was more detail in this article about what occurred with the actual dancing. The results these authors presented together were “links between the teacher’s presentations and instruction and the students’ levels of creative responses” (p. 174), and “links between the teacher’s
teaching cues and images and the students’ levels of dance quality and expression” (p. 177).

Just as in the first study presented regarding Chen’s original work, the literature has a strong research base with immaculate detail. Triangulation and member checks are still evident adding to its credibility. The study is dependable, matching research presented by the author prior to engaging in the study. Finally, these findings can be transferred to other classrooms of various content areas. This study was done in support of constructivist theory (as mentioned previously), which has been well-explored thus far. Based on the amount of research associated with this study, I would say it is externally valid. Further elaboration on history and maturation of the study would increase its internal validity.

All of these studies explore implications of how dance education involves critical and creative thinking. Many of the studies pointed to utilizing constructivist methods of teaching in order for students to engage their critical and creative thinking skills (Chappell, 2007; Chen, 2001; Chen & Cone, 2003; Keun & Hunt, 2006 & Minton, 2007). Chen (2001) discussed scaffolding students’ prior knowledge to spark new dispositions, encouraging student inquiries, and engaging student metacognition, often allow for students to have the capability to engage in critical thinking. Chen & Cone (2003) added on to these findings by
showing there are correlations between how well scaffolded the teaching is done and how creative the student responses are.

Chappell (2007) found that when teaching for student creativity, teachers should try to find a balance between giving students’ freedom and taking back control based on the classroom environment and circumstance. The correlation goes as such: the more experience, motivation, and support students have in dance, the more freedom teachers can provide in the classroom; and, the less experience students have with dance education, the more control teachers should provide. As students grow more comfortable in dance education, teachers should provide more sharing of responsibilities with students. Chen & Cone’s (2003) study found, “that the teacher’s use of scaffolding sequential learning experiences, which laid a foundation, helped students create their own dance sequences by organizing movement elements creatively and transforming dance elements into meaningful sequences” (175). This is similar to Michael’s use of scaffolding in Chappell’s (2007) study, by eventually allowing the students to create on their own. Like Chen (2001) and Chen & Cone (2003) note, Broadbent (2004) suggested that students increase their creativity the more they connect abstract ideas with prior knowledge and experience.

Keun & Hunt (2006) also found that students have increased proficiency in creative thinking and problem solving through teaching
creative dance using constructivist methods. Some of these methods engaged found students to utilize more risk-taking in their movement pieces, take ownership for their movements, and focus on their work. Even though students were taught the same skill sets, each group working together constructed noticeably different and creative dance pieces. Similar to Keun & Hunt (2006), Minton (2007) reported students feeling ownership of dance pieces, noting that it was because they were able to choreograph dance pieces themselves, rather than the teacher choreographing. Because of this, students felt their opinions mattered, and therefore reported enhanced self-esteem. Students also reported discovering increased abilities to think creatively, not to mention, increased abilities to think critically. Students were asked to create dances in response to a problem presented by the teacher, which is a constructivist teaching method.

Manley & Wilson (1980) held the position that dance students have creative attributes which non-dance students are less likely to have, and there is a correlation between the length of time spent on compositional work and the worth of the product. Similarly, Minton’s (2003) study pointed out that dance students are more likely to have higher levels of abstractness and originality in their creative thinking that non-dance students. What makes these two studies particularly interesting is that they help show the importance of dance education in supporting student
learning. Linking all of this research together comes across in this assumption: dance education offers major opportunities for teachers to engage students in constructivist methods of teaching, thus students are more practiced in critical and creative thinking than peers who are not involved with dance education.

All of these results have implications for both students and teachers. In answer to the question of how dance education can be utilized to support student learning, I would respond by saying that it engages critical and creative thought processes. As teachers, students can be supported in such processes through use of constructivist teaching practices, and incorporating dance across the curriculum. As seen in the literature, dance asks students to problem-solve, to think, to question, and to present material in an original manner. It asks students to focus, engage in dialogue, and work together to create a product. Dance requires that students are open to the content or topic at hand. It involves taking risks and making mistakes. Finally, it demands introspection and evaluation after completion of creative processes. In Chapter Four I will discuss the implications this research has for teaching.
Self-Concept

The theme of self-concept as it is affected by dance education arose in numerous studies. Some studies discussed how dance education affects students with disabilities, disadvantaged students, and exceptional students. Trujillo (1981) explored the relationship of Hispanic Ethnic dance to self-concept and academic achievement. Puretz (1973) studied the effects of dance and physical education on self-concept of disadvantaged girls. Cassady et al. (2004) also focused their work on female students, exploring how evaluation affects female dancers’ confidence. Barton (1982) inquired as to whether aerobic dance would increase educable mentally retarded elementary school children fitness levels; and, if as a result, the children would have more positive self-concepts. Meekums (2008) investigated if dance movement therapy helps children develop emotional literacy. All of these studies analyze the relationship between dance education and self-concept; however, the type of dance form used is different for most of the studies.

Like the prior studies, Vicario et al. (2001) examined the influence of dance on self-concept of adolescent girls. Kalliopuska (1989) focused in on how the specific dance form of ballet develops and improves self-concept thus increasing engagement. Schubert & Melnick (1997) took a broader approach and investigated the ways in which integrating the arts across the curriculum impacts self-concept. Finally, Oseroff-Varnell
(1998) explored the communication and social processes involved with dance students in a residential school, providing insight into how that context impacts self-concept.

As Trujillo (1981) noted, “Dance has been defined ‘as contributing to the development of a positive self-concept’ (American Association for Health, Physical Education, and Recreation, 1974, p. 4)” (p.19). As noted in Chapter Two’s history regarding self-concept, a high self-concept generally has a positive relationship with high academic achievement. The following literature provides insight into how dance affects the self-concept and identity of students.

Trujillo (1981) conducted a treatment/control group designed experiment examining the relationship of participation in Hispanic Ethnic dance to student self-concept and academic achievement. At Mission High School, in San Francisco, CA, Trujillo found growth in self-concept, positive observable behavior, and cognition in the treatment group. Both groups were provided with the following pre-tests: the Tennessee Self-Concept Scale, the Folklórico Culture Quiz, and a General Questionnaire. The treatment group participated in a Hispanic Ethnic Dance Curriculum, while the control group participated in a modern creative dance course. After six weeks of class, students were provided with the same testing devices. Although not the author’s focus, Trujillo also conducted qualitative research in the form of the daily clinical
observations of 1.) The students’ in-class attitudes and cooperation, and 2.) Their verbal statements and responses.

The number of subjects for the study are inconclusive as in the abstract of the article the author claims sixty students were utilized—thirty in the treatment group and thirty in the control group. In the actual article the author again points to the utilization of sixty students; however, the author then proceeds to say that there were forty-four students in the sample. While this may not have any effect on the validity of the article, it makes the author’s organization and editing skills questionable. When discussing cultural backgrounds of the students, the author counts out the number in each sample (n=22).

The diversity of the treatment group and the control group are not exactly the same, but both had a higher percentage of Hispanic students. This diversity is crucial to the study, as Trujillo’s intentions were based on lack of cultural relevance in schools. Trujillo aimed to find if bringing in culturally relevant curriculum to the dance class would have an impact on students’ self-concepts and behaviors. The average age of the students was 15.5 years and almost all of the participants were female (the author does not specify the number of males in either group). Trujillo pointed out that she did design for equal male and female numbers in the research design; however, was unable to achieve male
attendance. The lack of male presence makes this a non-reliable source regarding male self-concept and behavior in dance.

During the six weeks of dance classes there were separate teachers for each group. This is cause for concern to the study’s ecological validity as each experimenter’s personality or teaching method may have had an effect on the students, rather than the content being taught. Trujillo pointed out, “Factors that were not controlled in this study were the effect of teaching styles and teacher personalities and their relationship to student change in self-concept. Nevertheless, generalizations about the value of the Hispanic Ethnic Dance Curriculum can be made with respect to teacher variables” (p.35). A source for concern regarding internal validity points to the testing. Students participating in the study may have come to know what to expect from taking the same pre- and post-tests, and were more in tune with what to look for during class in relation to what they had pre-tested on.

The findings were significant (p < 0.01) according to the correlative outcomes. The five most significant variables (in descending order) were physical self, behavior, family self, self-satisfaction, and social self. All of these variables showed the most growth or improvement from the students in the treatment group. Students from the treatment group also showed significant (p < 0.01) growth on their total self-concept scores and cognitive knowledge testing.
As stated before, Trujillo incorporated qualitative research into this study—analyzing observable changes in student behavior and student responses. Trujillo monitored the treatment group on a daily basis; however, did not as closely observe the control group—showing that change was not tracked, nor available for further inspection—pointing to a lack of dependability in the control groups’ results. On the other hand, Trujillo did share progression within the treatment group and their response to the treatment. Initially, students were hesitant—even nasty—towards participation in the Hispanic Ethnic Dance Curriculum. Throughout the process students became more engaged and as Trujillo noted, “there was observable positive changes in behavior and verbal classroom interaction among the treatment group participants” (p. 34).

Puretz (1973) conducted a one shot case study to compare the effects of dance and physical education on the self-concepts of selected disadvantaged girls, at the elementary school level. The study used a fairly large sample of disadvantaged children (n=150)—seventy-five students participated in the treatment group which included a modern dance curriculum instead of physical education, while the other seventy-five participated in regular physical education. Puretz pointed out that the experimental group was composed of disadvantaged inner city elementary school girls; however, Puretz did not speak to the advantages (nor disadvantages) of the control group. This lack of explanation causes
concern regarding if the experiments were using differential selection in creating this study. If the students were not of similar backgrounds, the internal validity of the study is not as strong.

Because students did not go through the same events at the same time, the history of the study lessens its internal validity as well. The methods the experimenter used included each group receiving thirty minutes of daily lessons. As far as the control group’s physical education requirements, students were subjected to “low and high organization, self-testing activities, stunts and developmental activities using equipment. Each lesson involved motor activities and excluded modern dance” (Puretz, p. 3). The experimental subject’s goals were to develop movement vocabulary and have a place provided where students could be spontaneous, creative, and improvise movement. The activities used were structured through Laban’s four major movement headings: the body, effort, space, and relationships. Students also worked with Laban’s factors used in dance education: time, weight, space, flow, and impulse of motion from inner efforts.

The Lipsitt Self-Concept Scale for Children was administered as a pretest to each group, and then as a posttest four months later. Interestingly enough, the test was also administered three and one-half years later. The test measures self-concept containing twenty-two trait descriptive adjectives. Puretz used a t test to find if the differences in
scores were significant. The findings presented show “each group gained in mean self-concept scores, the experimental group by 12.44 and 15.58 and the control group by 7.16 and 10.64” (p.5).

Puretz found each group increased in self-concept scores. According to Puretz, “The result (t=2.66 df. =148) was significant at the five percent level and thus the hypothesis that modern educational dance positively influenced the child’s self-concept was accepted” (p. 7). One point of contention with the study has to do with statistical regression of the sample. Puretz utilized low-income, disadvantaged girls, meaning their scores would most likely grow, rather than diminish. Another point of contention is Puretz did not share who taught each group; therefore, a clear understanding of the expertise and whether the experimenter had an effect on the external validity of the study is not available. Finally, Puretz shared her own viewpoint on a threat to validity by speaking about the Hawthorne Effect. Puretz pointed out that the control groups self-concept scores changed (not significantly) and perhaps were about to become significant. She argued that each group may have been trying to be viewed as the “special” group, and also points out that, “it could, however, be postulated that this effect would be across groups and should cancel out” (p. 10).

Puretz also spoke to the increase in the scores for the control group by saying it was “an effect from the physical activities as an
influence on the self-concept via an indirect effect on the body image” (p. 10). She gave this concern more attention and states, “it was the contention of this study that the ‘expressive’ component unique to modern educational dance accounted for modern dance’s unique contribution to positive increases in the self-concept. The significant difference between mean scores confirmed that modern educational dance did, in fact, contribute to a more positive self-concept than physical education” (p.10). What can be derived from this study is that intrinsic expressiveness of modern dance “appears to have been a factor responsible for the significance of differences” (p.11).

Cassady, Clarke, and Latham (2004) conducted action research to examine evaluation in dance amongst girls. Two groups of girls were examined, Year 9 (ages 13-14) and Year 11 (ages 15-16) in the South of England. Year 9 (n=24) and Year 11 (n=11) studied dance in separate situations. The groups were not meant to be compared with each other—they were just two samples utilizing similar treatments. Experiments with each were naturally different as the two groups were at different levels. The purpose of this study was to investigate how the girls would feel about being evaluators and being evaluated, as well as to examine ways in which students would feel confident in being evaluated and the evaluator.
The methods utilized to obtain data on how the participants felt included questionnaires and interviews with the students. The questionnaires were used to understand the feelings the participants underwent during dance class and the interviews were conducted in pairs to get a feel for the reasons the participants felt the way they did about the various evaluations. Evaluations were conducted of other students, the students’ selves, and by the teacher. Each evaluation method yielded various results. Some students compared themselves to other students of higher experience which seemed to be causal of lower self-worth. Other students felt evaluating each other was challenging to do. The majority of the students preferred scaffolding by the teacher when evaluating so as to feel comfortable in engaging with the task.

This study is different from the others in this section as its aim was not to examine self-concept amongst students (or girls in particular); however, it does provide access to one way in which dance may affect self-concept negatively in young girls through unguided evaluation. The researchers suggested that this may be a cause of the use of video cameras in assisting evaluations. The video cameras created worry for students regarding what they looked like and some students realized that their dance self-concept did not match the reality of their abilities (p.32).

The findings do appear believable enhancing the authors’ credibility. Much of the literature regarding self-concept pointed out that
girls in the early teen ages are susceptible to lowered self-esteem in dance due to comparisons of self with others, making this journal article more dependable. The researchers did not speak to member-checking or triangulation to be specific, although it seems they engaged in member-checking through using the interviews as a way to cross-reference what was being said in the questionnaires.

Barton (1982) conducted a case study inquiring as to whether aerobic dance would increase educable mentally retarded elementary school children fitness levels; and, if as a result, the children would have more positive self-concepts. This study was conducted because children with mental retardation perform consistently below average national levels in physical fitness. The participants (n=21) consisted of 13 males and 8 females whose ages ranged from nine to sixteen years old. The Pennsylvania elementary school children were classified as educable mentally retarded (EMR) with no physical disabilities preventing them from participation in the study. The methods included three 45-minute sessions during each week, for eight weeks. Students participated in a warm-up, sit-ups, workout, and cool-down periods during each session. The sessions were designed to develop abdominal strength, cardio-respiratory endurance, strength, flexibility, and coordination.

The instrumentation utilized was the AAHPER Special Fitness Test and Fisher’s Picture Self-Concept Test for Mentally Retarded. Both tests
were administered prior to and after the research was conducted. The Fitness Test showed significance at 0.05 level, indicating that aerobic dance improved the participant’s fitness levels. The Self-Concept Test showed significance at the 0.01 level, indicating that there is a relation between increased fitness through aerobic dance, and a more positive self-concept. Given this result, the researcher pointed out that self-concept scores on the pre-test were fairly high to begin with. As Barton (1982) shared, “The findings of this study has indicated that mentally retarded individuals can excel in physical fitness performance” (p. 28).

One point of contention with this study is that the researchers have not explained possible reasoning behind the relationships between mental retardation, increased fitness, and increased self-confidence. Perhaps the participants knew what to expect after taking a pre-test in fitness and in regards to their self-concepts. Perhaps the participants worked harder on their fitness knowing they were to be tested on it again. Barton did, however, state that the pre- and post-tests for each test were the exact same adding to the internal validity of the study. When speaking of aerobic dance research, the author said that, “supportive research (Igbanugo and Gutin, 1978) has shown to be effective in increasing fitness levels of those people who participate in it” (p.25).
Meekums (2008) conducted qualitative research examining if Dance Movement Therapy (DMT) helps children to develop emotional literacy. Emotional literacy (EL) is “described as developing in school pupils ‘a capacity to know what it is they feel; to express those feelings in an appropriate fashion and to empathise with the feelings of others’ (Park 1996, 57)” (p.96). What makes this study extremely different from the other literature on self-concept, is that creative dance is not a variable in allowing the participants to express themselves. The researcher used DMT with the participants to help them express themselves. This research is more clinical than the other studies I will be comparing it to.

Participants (n=6) participated in individual DMT sessions, while some had a few group or parent sessions as well. No child received the same amount of sessions and at least one session was cut short based on the researcher’s poor health. The sample was selected per referral of classroom teachers as defined by the teaching staff, faculty, and research. Therapist notes, a teaching staff focus group, a teacher-rated child behavior scoring sheet, and a retrospective teacher feedback sheet, were all used as methods of data collection. The data was collected before, during, and after treatments. The data was triangulated with at least more than one source adding to the credibility of the study.

In keeping with Meekum’s theoretical positioning on DMT, the sessions allowed for students to create whatever form of play or
movement they wished for. Students were provided props, music, books, and the researcher, as tools for play and movement. The researcher responded to the students however they wished in order to provide therapy and allow for children to develop emotional literacy. The referring teacher and the researcher discussed goals for each student individually. A goal chart was created and there was only one case in which a goal was not met, having to do with coordination of a participant. Positive results produced were from the following goals: increased self-esteem, increased emotional expression, and increased social function.

The researcher observed the following movement metaphors to show increased emotional literacy: success and mastery, special and powerful, hide and seek, attachment, loss and endings, and ritual. Meekums wrote it is, “possible to conclude cautiously that DMT is an appropriate intervention for children who need to develop emotional literacy, contributing to the development of self-esteem, emotional expression and regulation, and social function” (p.108). While my research speaks more to creative dance, I believe DMT provides implications for creative dance teachers into helping students discover emotional literacy within the classroom. Freedom is a major theme in this study, in that students are provided the freedom to self-discover and self-express. The other studies in this section on self-concept also point
to students having the freedom to express their selves. This adds to the dependability of the study.

Vicario, Henninger, and Chambliss (2001) conducted a research study assessing the influence of dance education on self-concept for adolescent girls. The study consisted of adolescent girls ranging in ages from thirteen to twenty years. These girls were enrolled in dance classes from four different dance schools—three in Pennsylvania and one in New Jersey. The average age of the participants (N=53) was 14.72. All of the students ranged in age, ability, and dance experience. The dance schools were divided into two categories, competitive and non-competitive, in which the students were enrolled in one or more forms of dance. The forms included: jazz, ballet, pointe, tap, and modern.

The researchers utilized numerous tests to assess all of the variables being evaluated. There were many variables to this study, including benefits of dance such as: differences related to student efficacy, competitive and artistic dance, parent support, introversion versus extroversion, as well as potential harms of dance instruction. A four point Likert-format scale was utilized to assess self-esteem, body image, dance ability, and peer and parent relationships. Using a five point Likert-format scale, the students were assessed on preparation prior to dance classes and inhibitions regarding dancing in front of others. Participants rated their own abilities in dance, the emotions they
experienced while dancing, and were asked to compare their attractiveness to other girls in the schools. (The researchers were unclear if attractiveness was in comparison to girls within the whole school, or just in dance class.) Finally, the researchers utilized a 22-item Extraversion subscale from the Eysenck Personality Inventory to evaluate the students’ extraversion. All students took all surveys, although the authors failed to share at what point they surveyed students.

The researchers found that most girls reported higher concentration and confidence levels due to participation in dance class. Only about ten percent of students “did not feel better about themselves after dancing” (p. 17). The authors found that the more dance experience students had, the more confident and happier they felt. The students with stronger dance abilities felt more relaxed at dance class. Student who had higher dance efficacy were less likely to see dance education as being taught discipline. They also were more likely to feel attractive at dance class and school. Students with low dance efficacy were more likely to feel clumsy while dancing.

The researchers also divided the participants into two groups based on the kind of training the schools provided: competitive (N=27) and non-competitive (N=26). Competitive schools were more likely to feel self-conscious in dance clothing and less likely to eat dinner before dance class. Students participating in non-competitive schools often felt the
following: clumsiness while dancing, dance teaches discipline, and dance strengthens memorization skills. These students also experienced improved relationships with peers at school due to dance class and expressed more sadness when the recital was over than students who perform at competitions all the time.

Gaining entry into the schools was not discussed in the research, nor was the relationship the researchers had to each school. This study does, however, compare to other studies examined in that the authors studied adolescent girls. This adds to the generalizability of the study in that similar findings were seen in other studies concerning adolescent girls’ self-concepts in regards to dance. Also, the authors utilized a strong research base to inform their study, and compared their findings with other studies to show similarities which seemingly adds to the study’s generalizability.

One point of critique worth noting is the researchers’ failure to comment on their own strengths and weaknesses regarding the research, nor do they provide suggestions for future growth regarding their question. The researchers provided clear descriptions regarding the surveys being used with the participants, but do not define at what point the surveys were given to students. No triangulation or member checks were utilized to make sure their study was credible. Although this is the case, the study was consistent with other findings adding to the
dependability of the research. This study is transferable with other studies based on the participants being adolescent females. The results are confirmable as both the process and product of the data collection and analysis were determined and agreed upon by the authors, but this study seems replicable.

Kalliopuska (1989) conducted a quantitative study exploring the engagement of dancers with ballet as a hobby. The results pointed to ballet developing and improving students’ self-concepts. Participants (n=62) were ages 9 to 17 and members of the junior ballet of the Finnish National Opera. Based on four self-esteem questionnaires, the students were measured for empathy, creativity, and other personality actors. Control group members were composed of Finnish-speaking school students. Results showed that members of the junior ballet were more interested in other art forms than technology.

Limitations of this study include lack of concessions on the author’s part. The literature is a little more outdated; however, this related to other studies in that dance can create a more positive self-concept through providing students with the autonomy to better themselves.

Schubert and Melnick (1997) conducted a qualitative study in which they investigated the effects of integrating art forms across various disciplines. To be specific, visual, performing and musical arts were
integrated with civics, English, history, and geography curricula. The participants included eleven school districts across the state of Pennsylvania. Each district created curriculum lasting a few weeks to the entire school year, infusing them with more of the arts. Data collection occurred through deep interviews with teachers and administrators (n=75), and students (n=25) during a one year period.

Findings included increased self-concept and positive attitude toward school, students being able to shine in other areas than what they are known at being good for, a more equitable learning environment, stronger information retainment, and increased participation of students. Although these results seem very appealing, the research failed to mention if member checks were completed to ensure the results were credible. It seems triangulation was the only source utilized to increase the internal validity of the study. All of the teachers, administrators, and students interviewed over the year-period agreed that arts should be added into the curriculum to improve overall learning experience.

Oseroff-Varnell (1998) conducted a single case study to better understand the communication and socialization processes involved with dance students in a residential arts school. The researcher provided clear findings with reinforcement from prior literature. The study took place at a fully accredited, residential secondary school for performing arts. The participants included high school seniors (n=32) in order to understand
experienced students perspectives of communication and socialization, and first year students (n=47) to understand what it was first like at the school for new students. The two sources of data were derived from observations and interviews. Interviews were conducted with 22 voluntary participants. Observations were conducted for approximately 60 hours with the seniors, and approximately 65 hours with the freshman throughout each term. Observations took place during “class sessions, rehearsals, performances, commencement ceremonies, orientation meetings, and free time” (p.104). The interviews were conducted to obtain an idea as to the students’ perceptions of the socialization process, as well as to member check with the students, adding to the credibility of the study.

Oseroff-Varnell followed Staton’s (1990) tripartite model of communication to reduce uncertainty in socialization. The domains of communication include messages of: academic content (cognitive uncertainty), school policies or procedures (normative uncertainty), and reassurance and emotional support for students (affective uncertainty). Each of these domains was discussed in how Oseroff-Varnell observed them within the schools, and other themes were brought forth regarding the socialization process, to include: control vs. freedom (normative); inclusion vs. exclusion (affective), student voice vs. teacher voice (affective & normative); and, collectivism vs. individualism (affective). The
researcher discussed each end of each bipolar theme to point out ways in which they were present within the dance classroom.

While this study was about communication and socialization, it also spoke to student identity and self-concept. As students worked through socialization processes they were or were not scaffolded by teachers in understanding the messages around them. For example, in the dance classroom, students were given feedback that came off in an unsupportive way, adding to their uncertainty of the message. As students grew to understand the teacher’s form of communication, they learned that the so-called “unsupportive” communication was really positive feedback, letting students know they care for them. If the teacher had informed students of this in the first place, growth for the student could have happened sooner, allowing for their self-concepts to be more positive. Oseroff-Varnell noted that it would be beneficial for future research to explore similar scenarios further.

A point of contention with this study is that transferability is lessened by the small amount of participants, as well as the school being specifically an arts school. While transferability is lessened, other dance classrooms still have many of the same situations present as this school’s dance classes did.

Trujillo (1981) found growth in self-concept, positive observable behavior, and cognition in the control group participating in Hispanic
Ethnic dance. Students grew in the areas of physical self, behavior, family self, self-satisfaction, and social self. Barton (1982) showed that aerobic dance increases participants fitness levels thus increasing participants’ positive self-concepts. Similarly to Barton’s (1982) work, Kalliopuska (1989) found that ballet and Puretz (1973) found that creative dance positively influences a child’s self-concept. Puretz (1973) found that the intrinsic expressiveness and creative aspects of modern dance are what help increase positivity in regards to self-concept. Even though Meekums (2008) found that dance movement therapy is an appropriate intervention for developing student emotional literacy, thus increasing self-esteem, this research was different from the other studies in that dance was not the definitive variable. While that is the case, movement and allowance for exploration fit in well with what dance education is all about.

Vicario et al. (2001) found that about 90% of girls report higher concentration and confidence levels due to participation in dance class. They also pointed out a correlation between experience and confidence—typically the more experience, the more confidence. Important to self-concept is the idea of competitive versus non-competitive dance schools. Vicario et al. (2001) found that when students are placed in competitive dance schools they are more likely to feel self-conscious. When students are placed in non-competitive schools they are more likely to feel clumsy.
Cassady et al. (2004) found that when students compare themselves to others, they typically have lower self-worth. From Vicario et al. (2001) and Cassady et al. (2004), it can be extracted that students feel lower self-worth when faced with judgment of their dance abilities by others. From these studies it seems a mix of competitive and non-competitive classrooms can help students improve their dance abilities technically, and help students feel more comfortable, confident, and have higher self-worth.

Even though Oseroff-Varnell’s (1998) study was about communication and socialization, it also spoke to student identity and self-concept. It found that teachers need to be upfront about what kind of feedback they will be communicating to students (constructive criticism, criticism, etc.) in order to inform students so they are not taking it personally, thus affecting their self-concepts.

When investigating the effects of integrating art forms across various disciplines, Schubert & Melnick (1997) found increased self-concept and positive attitudes toward school, students being able to shine in more areas than what they are known at being good for, a more equitable learning environment, stronger information retention, and increased participation of students.

The results from the literature provide a clear view into how students grow through dance in images of their own selves. As students
view their physical, emotional, and academic selves improving, their self-concepts also improve. Behavior sometimes improves, family interactions sometimes improve, emotional literacy (EL) grows, and often self-satisfaction improves as a result of dance. Students gain self-respect and self-confidence through mastery of technique and the freedoms dance offers. As a result of a more positive self-concept, students often have a more positive attitude towards schooling.

Dance as Part of a More Holistic Approach

All of the literature reviewed up until now relates to one common theme threaded in each section of Chapter Three. All of these themes are part of why dance can be used as part of a more holistic approach across the curriculum in public education. The following literature discusses ways in which dance has been used as part of a more holistic approach, and if it is worth doing.

Many of the following studies discuss ways in which the utilization of dance or arts education impact teaching within specific content areas. Goral (2007) explored if fractions can be taught successfully through use of music and movement. Werner (2001) also examined integrating dance and math, exploring if the combination of the two would affect students attitudes toward learning math. Similarly, Lawson-Williams (2007) explored how incorporating dance into physical education affects physical education instruction. While Goral (2007) and Werner (2001)
focused on the learning of students, Lawson-Williams (2007) probed the confidence levels of non-dance teachers teaching dance.

Some of the literature provided answers to how dance can contribute to a more holistic approach to teaching. Rovegno & Gregg (2007) explored if, how, and to what extent folk dance contributes to a more holistic approach to learning. Keinanen et al. (2000) investigated if dance instruction can lead to increased skills in reading and nonverbal reasoning. Kentel & Dobson (2007) took the approach of how to dissolve boundaries between body and mind in order to promote a more holistic approach to learning. Finally, Stinson (1975) explored if learning is actually measurable through creative dance. This is important to know if teachers are to allow for dance to be a way for students to present their understandings of content.

The last two studies discuss core curricular teachers’ attitudes toward incorporating dance across the curriculum. MacDonald (1991) probed teachers’ attitudes toward incorporating dance into their own classrooms. Oreck (2000) delved into the characters and attitudes of teachers more likely to incorporate arts into their classrooms.

Goral (2007) conducted a qualitative study to determine if fractions can be taught successfully through the utilization of a more holistic approach to include the arts (specifically music and movement). The methods utilized to teach the student fractions included a step-by-step
process over a course of three days. On the first day, a brief amount of movement, music, and poetry were introduced to the students. Each day, more movement, poetry, and music were added to the instruction. For example, as each day occurred, a new half was made in fractions. So Day 1 they discussed whole numbers; Day 2 they divided 1 by 2 to show a fraction of \( \frac{1}{2} \); Day 3 they divided \( \frac{1}{2} \) by \( \frac{1}{2} \) to teach students fractions of \( \frac{1}{4} \); Day 4 the researchers divided \( \frac{1}{4} \) in half to reach the fraction of \( \frac{1}{8} \). Participants included 4\textsuperscript{th} and 5\textsuperscript{th} grade students in two elementary schools in Louisville, Kentucky.

The outcome of the research was measured by the students’ success in understanding the fractions. Understanding was measured by written responses to questions about fractions. Some students drew number lines (which were representative of the movement method of learning. Some students drew examples of fractions being parts of a whole. One student explained how \( \frac{1}{8} \) was divided into \( \frac{1}{16} \) through musical notes.

Not only was this article useful in explaining the advantages of movement in teaching math, but it also portrayed movement as one part in a holistic approach to teaching. Obviously, movement worked better for some students, while music or language arts worked better for others. All three art forms acted as a scaffold for students when learning fractions and their comparison to whole numbers.
Due to the short time this study occurred over, I am hesitant to generalize this for all students. The study focused on elementary school students; however, I find it reasonable to believe that the outcome is transferable to other age groups. This is reasonable and credible specifically because Goral made reference to a National Mathematics Conference where it was pointed out that fractions should be taught with physical representation. This provokes the question: What other subjects should be taught with physical representation or movement?

Werner (2001) conducted a quantitative study interrogating how integrating dance and math in an intense co-teaching model of integration will affect student attitudes toward learning math. Participants in the study (N=202) were in grades 2-5, members of a magnet school in Minneapolis, Minnesota. They completed a survey, made up of a three-point Likert scale in the fall as a pre-test and in the spring as a post-test, which is potential cause for concern regarding internal validity. The administrators of the treatment were collaborators of dance and math teachers. The data went under analysis through a variety of t-tests.

The first t-test results show that there was a significant difference between the dance/math students’ and the non-dance/math students’ attitudes toward math, for the reasons of stronger motivation, more ways to express math than just paper and pencil, more able to transfer
knowledge across content areas, and stronger engagement. The second t-test results show that dance/math students were either more positive in their attitudes toward math or else there was no change. The reverse was the result for non-dance/math students—they were either more negative in their attitudes toward math or else there was no change. Finally, it was noted by the teachers that dance/math students were more likely to engage in the material and make connections within each content area, than non-dance/math students.

As the independent variable (dance) caused observed change in many of the math students, the proof of maturation makes the study more internally valid. Member checks were utilized with the teachers participating in the study. The study is transferable, especially in comparing with the other studies in this section as it provides another example of dance making the process of learning another subject easier on the students, as part of a more holistic method.

Lawson-Williams (2007) conducted a one shot case study in which the researcher inquired about how a dance service-learning project would impact student teachers physical education instruction. Three physical education majors were enrolled in the service-learning course (2 males and 1 female). The students of the three physical education teachers (n=20+) ranged in age from 5 to 13 years in summer camp at a YMCA. The teacher candidates were exposed to dance concepts and
instructional methods that included a variety of dance forms. The classes were held at least 3 times a week for an hour and a half. Through self-reflective essays of the teacher candidates, and three reflection papers each, the research was administered.

Through the service-learning project, the teacher candidates were able “to improve their critical-thinking, analytical, and problem-solving skills” (p. 49). They gained confidence in their organizational skills and instructional capabilities. This project was drawn up based on prior literature and is confirmable. While it does not connect with the other studies based on self-concept due to the participants being young adults, it makes a clear point that a strong self-concept and confidence in the teacher when teaching dance methods is important if to be added to the curriculum. To further this point, the strong self-concept comes from a comfort level provided by continued education. Scaffolding learners will create a comfort level thus creating a stronger self-concept in most instances.

Rovegno and Gregg (2007) conducted qualitative research to determine if, how, and to what extent folk dance will contribute to a more holistic method of teaching. Through videotapes, field notes, transcripts of lessons, lesson plans, reflections on teaching and student responses, children’s oral reports, cumulative testing, daily writing assignments, and five reflection papers the researchers identified themes and critical
incidents. The project, titled “People and the Land: Native Americans and their Environments” (p. 205), was modeled under Cornelius’ theoretical framework in which the authors tried to respectfully teach about the Native American culture. Even through this theoretical framework, the researchers’ felt they were culturally ignorant, as well as lacked in content knowledge, which in turn, limited the effectiveness of the unit.

The researchers (two white women) taught the unit to one third grade classroom (n=17). The majority of the class was African American and 14 students received free or reduced lunch. One of the goals of the researchers “was to help the children connect with and respect different worldviews and ways of life” (p. 213). The authors wanted to keep with constructivist theory and allow the students to experience the Native American culture in a more personal and meaningful way; however, they were quick to note that their own “ignorance and cultural lenses” were problematic in evaluating if the unit was successful. Through a pow-wow and arts and crafts, the authors hoped to provide such meaningful experiences. Unfortunately, the authors believe they traded authenticity for experiential learning. They state, “We certainly worried that we were guilty of trivializing aspects of Native American cultures” (p.216). While those fears are very relevant, the researchers did note that learning occurred amongst the students. The issue at hand is if the students actually learned to respect and
embrace diversity through the folk dance and other activities, or did they just have fun doing them?

What this study points out, unlike some of the other studies in this section, is that teachers must be careful in utilizing dance or other content areas as part of a more holistic approach to teaching their own content. This article is important because it reminds us to examine if we really understand what we are teaching, and if we are teaching children something incorrectly.

Keinanen, Hetland & Winner (2000) conducted two meta-analyses in order to examine if dance instruction can lead to increased skills in reading and nonverbal reasoning. Each meta-analysis utilized four studies in determining answers to the question. Each study utilized was coded by at least two authors to check for consistency in comparisons of data. Each set of data for each study (all were quantitative in nature) was charted out to efficiently measure significance.

In regards to the meta-analysis examining if dance instruction can lead to increased skills in reading, the findings were significant at p<0.001. Based on further testing, the authors concluded the results are not generalizable to a new set of studies. There was one study in particular (conducted by Rose) which yielded positive results; however, the authors questioned the reality of dance causing an effect of better reading in students by asking, “Should we conclude that this study
demonstrated that the skills learned in dance transfer to the act of reading?” (p. 300). Worth noting in regards to Rose’s study is that the study created the dance curriculum to teach sound-symbol relations which may have compromised dance as part of the instruction. While the results of this study seem to be negative, the authors made another strong point:

It is important to note that in such studies, in which the comparison is between a dance-reading integrated curriculum and a traditional reading program, a lack of effect does not mean that the dance curriculum does not boost reading. Rather, it means only that the dance curriculum does not succeed in boosting reading more than does the traditional reading curriculum. Thus, such comparisons put dance to a stringent test. (p. 300)

With that said, dance does have the possibility to be a stronger part of a more holistic method to teaching reading. An example of this would be Seham’s study, as discussed by the researchers. Seham’s study yielded improvement in reading as well as other cognitive work (p<0.05) by dance students more than non-dance students. The researchers pointed out the excitement Seham’s methods created and were curious if Seham’s study was more about engagement in dance or the dance can be an interdisciplinary tool. This is what I believe sparked the second meta-analysis.
The second meta-analysis asked if dance instruction could improve nonverbal reasoning. Positive results were yielded and the authors find the results to be generalizable based off of the significant findings. The researchers found there is a relationship between dance instruction and nonverbal skills. The authors do note a limitation of their findings in that they only examined four studies. The other limitation offered is that the teachers in the studies were aware of the hypotheses offered and therefore were able to structure their work around them.

One possibility for the improved reading scores of students was engagement in the material. Dance instruction engages students and as a result, creates a positive outcome in other content area. So as far as holistic approaches are concerned, dance can be utilized as a method of engagement for students. One point of critique is that the ages of the participants in the studies utilized were inconsistent with each other. The participant ages in regards to nonverbal reasoning were 5-6 year olds, 12-13 year olds, 7-10 year olds, and 56-103 year olds. Also, the studies did not match each other completely in comparisons between dance and other content areas being made. The researchers contend that more research needs to be done in order to prove that dance knowledge and skills can transfer over to other content areas. I think there is always room for more research, but in comparing with the other articles in this section, maybe it doesn’t have to be such an extreme answer.
Kentel and Dobson (2007) conducted qualitative research inquiring as to how to dissolve boundaries between the body and mind in order to promote holistic approaches to learning. While aiming for answers to this query, the researchers had a goal of exploring curricular structures and pedagogical methods. The researchers studied four representative cases within a larger grouping of East Africa. What makes the location interesting is the cultural attachments East Africa has to dance and movement expression, placing transferability in question. While the authors did provide semi-thick description of the culture and settings in which the case studies were done, not understanding the complete context of the situation and how the schools were chosen adds to transferability issues within the research.

The research was conducted through videotapes, observations, interviews, and personal reflections of the participants. Five teachers, nine students, a dance director, a professional dancer, and a cultural expert were formally interviewed. The four settings which were shared in the literature included specific focus regarding: the playing field, the courtyard, the stage, and the desk. The authors provided no evidence regarding which institutions were chosen, why, or how the settings transpired. This leads me to believe that perhaps the cases which fit the authors’ arguments may have been chosen to provide evidence of examples. The authors claimed that the most inventive learning takes
place on the playing field and has to incorporate movement. Because the participants were most engaged through a mind-body connection in that environment, it seems reasonable to say that perhaps American schools are too lethargic in their educational conventions.

While I have already pointed out that I am unaware of the Kenyan educational context as a weakness, I find that it is a strength as well, in that Kenya provides a location for movement practices to take place, that otherwise may not in America. Through discovering some of the ways in which Kenyan children create, imagine, and move their bodies during play and dance, I have developed some interesting ideas that may work in the United States in a dance classroom. Dance improvisation and choreography provide an allowance for students to create, imagine, and explore ways in which they can move their bodies, utilize props and set, as well as make mind-body connections across the curriculum. I am cautious to infer that this study will be useful as the authors lacked in presenting detail for their methods, analysis, and findings. This study seems to connect with other studies regarding holistic approaches through pointing to mind-body connections in movement.

Stinson (1975) produced quantitative research questioning if learning is measurable through creative dance. The study sought to develop testing that will show learning occur in dance. The researcher designed tests to measure learning of movement concepts, movement
skills, and creative problem solving. These tests were administered as pre- and post-tests to the participants. The tests aimed to capture selected motor skills, motor creativity, and understanding of movement concepts. During the first session of twelve movement sessions, students were given a written pre-test discussing five questions related to the dance curriculum: movement of the body and/or its parts, space, time, energy, and dance as communication. Then, they were given a movement pre-test. During the movement test students were asked to perform four skills related to one of the major areas of the dance curriculum. Because the pre- and post-tests were the same, the reliability of the judges on the pre-tests is much higher than that of the post-tests, as the judges remained the same and knew what to expect and had experience with the students prior to seeing them do their final testing.

Participants were of elementary school age in Kalihi-Palama. Students came from low income housing and were almost entirely non-Caucasian. The researcher found trends amongst experimental students learning and control students, even though not all of the trends were of significant value to be credible. Few of the studies were at the 0.05 level. Stinson (1973) suggested that,

Further refinements of the test instrument and further tests of its reliability seem called for. In addition, it should be noted that this
study makes no attempt to determine the long range effect of classes or the effect of a longer period of instruction; or to answer other important questions related to creative movement, including the effect, if any, of classes on self concept, cooperation, and learning and creative behavior in other areas. (p. 45) In a more qualitative aspect of this research, a journal was kept by the dance teachers in which student enjoyment was noted, as well as increased good behavior. The teachers also noted in such journals the specific improvements in dance class. If this study is to be utilized to promote creativity in dance, I would point to the idea of dance being utilized as part of a holistic method because it provides students with a way of presenting creative ideas related to whatever content they may be studying.

MacDonald (1991) conducted a case study examining junior kindergarten through 3rd grade teachers’ attitudes toward and practices of creative dance. Participants were adult teachers, chosen based on interviews to reach for the following criteria: junior kindergarten through 3rd grade were represented, a variety of teaching experiences, and traditional and non-traditional educational beliefs were represented. Upon asking the teachers to participate, MacDonald held workshop interventions with the teachers’ schools six times, for three hours. Each workshop was typically held one week apart. The teachers were active
participants discussing and practicing ways in which creative dance could be incorporated into the curriculum. The teachers were encouraged to utilize methods discussed in their own general education classrooms and to write about their experiences. MacDonald conducted two observational visits to each school. When the workshops came to an end, an interview was conducted with each subject to understand attitudes toward creative dance in the curriculum, and to see if any habits had formed in the subjects’ educational practices.

Findings from the three sources of research (interviews, journals, and MacDonald’s field notes) pointed to creative dance being engaging for students, as a good mechanism for alternative and integrative teaching, and assisting with whole child development. All of these findings were based on opinion, some of which were not seen by the researcher. The participants were adult teachers; however, primary students of each teacher were indirect participants in a way. Therefore, it is somewhat safe to say that the context is similar to other studies in this section.

Based on the number of participants (n=20) who experimented with creative dance in their own classrooms and yielded positive results, I would say this study is fairly credible. Credibility was seen in the results being believable, member-checking taking place with the researcher and the participants, and triangulation with other data sources (the author compares her research with other current literature).
Assuming all participants taught numerous subjects in their respective classrooms, I would say the themes brought forth as findings are transferable across the elementary school curriculum. It would be interesting to see this study performed on middle and high school students.

Oreck (2000) conducted a mixed methods study to examine characteristics and attitudes of teachers who would be more likely to utilize arts within the classroom. The participants (N=71) were diverse in backgrounds and completed a survey, developed by Oreck (Teaching with the Arts Survey in 1999), to share their attitudes toward the arts within the curriculum. The survey also checked for frequency of use of arts. Out of the original group of 71 participants, 11 had the highest use and most positive attitudes toward the arts. Out of these 11, six were purposely selected as a sample for interviews to provide multiple perspectives in regards to the arts. The six participants were of diverse backgrounds within the arts, ranging from little or no experience to passionate artists. Four of the six participated in staff development workshops throughout one school year. Some received compensation for some of the activities, but more often than not worked for free.

Through the author’s analyses of the interviews with the participants, the following results were found about the characteristics
teachers had in being successful in integrating the arts. I will list them as they are written in the text:

1. These are highly independent individuals who have made choices about where, who, and what they teach.
2. These teachers are aware of constraints and pressures but are relatively unaffected by them because of their proven effectiveness as teachers.
3. All of the teachers had an interest in the arts though not all had formal instruction before participating in staff development. They felt that staff development workshops with artists had been crucial to their abilities to implement arts processes in their teaching.
4. The teachers tended to have a particular art form specialty in teaching which led them into the other arts.
5. The teachers have a broad definition of art. They see the art in all areas of their lives and throughout their teaching.
6. The teachers have strong beliefs that all students are capable of high achievement.
7. The teachers do not see the arts as a separate subject. They integrate art activities into many subjects for a variety of instructional purposes. The arts are just as likely to inspire a project as an academic subject.
8. The teachers articulate a wide range of clear performance and personal growth goals for students in the arts.

9. Each teacher has found multiple ways to use the arts and to play a variety of facilitator roles based on their own strengths. (pp. 12-20)

Oreck pointed out that these teachers’ attitudes are in support of the arts and they work to utilize their specific skills in relation to art, as facilitators of art. Finally, Oreck also stated that these teachers shared consistent support of their students as artists.

Adding to the transferability of the study, the author utilized thick description in presenting the findings. AS the study provides insight into the variety of teachers utilizing the arts, the participants were only high-use teachers. It would be interesting to gauge why other teachers are not using the arts as much. What keeps them away from the arts? We can only make assumptions as to why they do not use the arts based on why the participants in this study did. Due to lack of member checks, triangulation, observation, amongst other things, this study seemed harder to define as a credible source.

All of the literature reviewed up until now relates to one common theme threaded in each section of Chapter Three. All of these themes are part of why dance can be used as part of a more holistic approach across the curriculum in public education. The literature discussed ways in
which dance has been used as part of a more holistic approach, and if it is worth doing.

Many of the studies explained ways in which the utilization of dance or arts education impact teaching within specific content areas. Goral (2007) suggested that teachers use more than just dance to act as a scaffold for learning other content. She pointed out that movement worked well for some students in learning fractions, while music worked better for others. Werner (2001) found there is a significant difference between students learning a combination of dance and math, versus those only learning math. Werner (2001) deduced that the combination provides stronger motivation to learn, allows for more ways to express math than just paper and pencil, there is more chance of knowledge transfer across content areas, and stronger engagement levels from students.

All of the literature provided answers to how dance can contribute to a more holistic approach to teaching. Many of the researchers focused on specific subjects and how they interact with dance education. First, Rovegno & Gregg (2007) discovered points for concern with authentic utilization of folk dance in teaching other content. They pointed out teachers must be careful in utilizing dance or other content areas as part of a more holistic approach to teaching their own content. They reminded teachers to look inward as to see if they really understand what they are
teaching so as not to teach something incorrectly. Keinanen et al. (2000) found that “dance curriculum does not succeed in boosting reading more than does the traditional reading curriculum” (p.300). The researchers did, however, find there is a relationship between dance instruction and nonverbal skills. Keinanen et al. (2000) pointed out that dance instruction engages students, and as a result, creates a positive outcome for the content area.

Kentel & Dobson (2007) found that the most inventive learning takes place on the playing field and has to incorporate movement. Meaning, in order to stimulate creativity and allow for mind-body connections to occur, teachers need to look past the conventions of desks and pens in their educational strategies. This is similar to how dance helps to support student learning. Dance provides an allowance for students to create, imagine, and explore ways in which they can move their bodies, utilize props and set, problem-solve, and make mind-body connections across the curriculum. As Stinson (1975) explored if learning is actually measurable through creative dance, she had no conclusive results. Stinson (1975) did find that student enjoyment and increased good behavior was found in dance class. When linked with other studies, Keinanen et al. (2000), Kentel & Dobson (2007), and Stinson (1975) all showed that students are clearly more engaged in
content with the presence of dance education in use as part of a more holistic approach to teaching.

The last two studies discussed core curricular teachers’ attitudes toward incorporating dance across the curriculum. MacDonald (1991) found creative dance integration as engaging for students, as a good mechanism for alternative teaching, and assisting with whole child development. Oreck (2000) discussed the following qualities and attitudes of teachers who would make successful facilitators of interdisciplinary teaching with the arts: highly independent, aware of constraints and pressures, interested in the arts, has experience with a specific art form, have a broad definition of art, believe all students are capable of high achievement, do not see arts as a separate subject, articulate clear performance and personal growth goals, and teachers who are creative in uses for art. In addition, Lawson-Williams (2007) found that a strong self-concept and high confidence level of the teacher is important if to be adding dance into other content areas.

More often than not, students will be at a real advantage if dance is integrated into other content areas. Dance can provide students with the freedom of movement, enhancing the body-mind connection; therefore, increasing total understanding of content. Also adding to the total understanding of content is dance acts as a scaffold to the students’ learning. While dance doesn’t always help students learn content better,
it can be a source of enjoyment, engagement, motivation, and creativity for the students in effort of a more holistic approach to learning.

Conclusion

Chapter Three was a review of the literature which pointed out the impact dance has on students’ self-concepts, critical and creative thinking abilities, and engagement levels. Chapter Three also discussed the ways in which dance can be used as part of a more holistic approach in teaching across the curriculum. The literature was reviewed, critiqued, and synthesized, based on the findings. The research in the Engagement section found that students are supported in their learning of dance through being engaged with dance. This is due to the freedoms dance provides, the focus it requires, the feelings of transcendence it can offer, the personal and emotional connections they may have with the work, the sense of autonomy it has the potential to impart, the preparation it takes, the possibility of performing, and self-reflection. Researchers found that disengagement with dance can be caused by fear, lack of confidence, and dislike of too hard or too easy work.

The research in the Critical Thinking and Creativity section found that constructivist methods of teaching are important to employ in engaging students critical and creative thinking. The constructivist methods found to engage such thinking are: risk-taking, taking ownership of work, group work, student constructions, scaffolding,
inquiries, Metacognition, and problem-solving. The literature pointed out that more freedom in these methods can be provided to students with more experience. The research also stated that students who engage with dance education are more likely to be well-versed in critical and creative thinking than those who are not involved with dance education.

The Self-Concept section found students with more positive self-concepts from their experience with dance education due to: personal growth of physical self, behavior, family self, self-satisfaction, and social self; increased fitness levels; intrinsic expressiveness and the ability to be creative; increased emotional literacy; and student understanding of the tone of the teachers feedback. The literature also stated that when incorporating dance art forms into the curriculum, students have increased self-concepts and more positive attitudes toward school. This is due to being able to shine in more areas than what students are typically known for, integration of the arts allows for a more equitable learning environment, stronger information retainment, and increased participation of students.

The Self-Concept section led well into the Dance as Part of a More Holistic Approach section. This section pointed out that incorporating dance into other content areas supports student learning by acting as a scaffold to students, providing stronger motivation and engagement for the students to learn, and allowing more non-traditional methods for
expression of understandings in the content area. Students find enjoyment and have increased good behavior in dance class which could cross over into other content areas. Finally, the Holistic Approach section discussed that there are certain qualities, characteristics, and attitudes with which teachers will have more success incorporating the arts into other content areas than others. Chapter Four will discuss more thoroughly the implications for teachers in creating interdisciplinary transfer of these themes.
CHAPTER FOUR: CONCLUSIONS

Introduction

Chapter One introduced the research question and the controversies surrounding it: how can dance education support student learning within the classroom and across the curriculum? Dance education is often overlooked as an important part of the curriculum in supporting student learning due to a lack of resources, lack of research in regards to the benefits of dance education, and legislation is focused on other content areas such as math and language arts. Not only is dance left out of being its own curricular area, but many teachers overlook using it within their content areas due to lack of time, resources, or knowledge of how it will help support student learning.

Given this information, Chapter Two provided a deeper look into the history behind these issues. It outlined the rise of arts education in public schooling and dance education within the United States. It stated that arts education saw its demise upon the launching of the Soviet missile Sputnik, where the United States was anxious to return to “core” curriculum and cut the arts. Even though arts education is on the rise again, research is necessary to explain its importance. Chapter Two also discussed how dance education is beginning to hold equal importance to that of other art forms. While it has the same acknowledgements from the government and legislation, its presence is still missed in numerous
schools across America. The chapter finally pointed out that it is up to
dance educators to expose how dance can support student learning in
order to make way for dance educations’ future within public schooling.

Chapter Three critically reviewed recent literatures regarding the
ways in which dance can positively impact student learning within the
classroom and across the curriculum in K-12 education. The research
described the ways creative dance engages students, enhances their
critical thinking and creativity, impacts their self-concept, and how it can
be used as part of a more holistic approach in teaching other content.
Each of these studies were reviewed, critiqued, and synthesized. I
examined many arguments that supported the inclusion of movement
and dance as its own subject within public schooling and across the
curriculum. I did not find any studies that directly opposed it, but did
examine some potential issues dance education could create. This
chapter will include more of an integrative examination of common
themes, ideas, and arguments found within the literature as a
conclusion. This chapter contains a summary of the findings—based on
the four sections of Chapter Three: Engagement, Critical and Creative
Thinking, Self-Concept, and Dance as Part of a More Holistic Approach.
Following the summary of findings, Chapter Four will discuss
implications for classroom practice, suggestions for further research, and
final conclusions.
Summary of Findings

After examining the controversies, history, and current literature, and through my own knowledge and experiences as a dancer and dance teacher, some conclusions can be drawn. Not only can conclusions be drawn about the themes brought forward in Chapter Three, but there are implications for teaching about these themes that will be described in this chapter. First, I will re-examine the findings of the literature regarding each theme, and reiterate conclusions drawn. I will then examine implications for teaching brought up through the literature. Finally, I will discuss my own limitations with my research and suggestions for future explorations.

Engagement

Stinson’s (2007) study showed dance is described by students as “fun” or “not fun.” These words were utilized in exchange for “engaging” or “disengaging.” Some of what the participants found about dance to be fun included social interaction, creativity, movement, transcendence, and freedom. Student voices presented the following interpretations of what was fun or engaging for them:

- Dance often involves group work and social interaction.
- Dancing in class allows students the chance to be creative and explore movement.
• Physical movement is a requirement of dance class, giving students a chance to experience something other than pen & paper work.

• Physical movement can create an “aliveness” which gets students motivated for the rest of the day.

• Dance teachers are often seen as fun and kind which makes the class more engaging for students.

• Students gain bragging rights through learning new dance moves, knowing how to dance, and being able to do movements with their bodies that others might not be able to do.

While the latter were key engaging factors for many students, others found them as annoyances that might have lead to their disengagement. Student voices also presented the following points on what was not fun or engaging for them:

• Dance often involves group work and social interaction.

• Feeling sick or being sleep deprived creates a conflict with participation levels.

Stinson and Bonds’ (2001) work showed that one of the possible reasons for student engagement was their interactions with the superordinary. While “fun” was not the subject of this study, it was still a word utilized by participants to describe some of their superordinary experiences. Some of these superordinary experiences included: bodily resonance, just having to dance, freedom, being the real person inside,
forgetting the outside world, entering another place or time, and magical or spiritual dimensions. In triangulating these themes with other literature, Stinson & Bond (2001) found students gain a better sense of themselves through dance. Students find certain dance experiences to be intrinsically motivating. In keeping with Csikszentmihalyi’s “flow,” dance can create enough challenge to keep students from being bored. Dance allows some students to “escape,” or absorbs their full attention—in some cases taking students to a state of transcendence. Dance can provide a community for students, with which self-discovery can take place. Finally, dance allows students to express themselves and connect with their feelings.

Bond and Stinson (2007) examined work and engagement in dance. By understanding what obstacles students found to hard work, we can better understand how to help students become more engaged with their work. Themes derived regarding obstacles to hard work include fear, lack of confidence, and dislike of hard work. Some students perceive work in dance to be too difficult or too easy. Some fear they are not good enough and display anxiety in class. Experiences of high engagement include the majority of the rest of the data collected. Students enjoy the constant work of dance, are intrinsically motivated through it, and prefer the consistency of self-disciplinary practices. Dance allows students to make mistakes and continue to work to get
better. Students love dancing. For some it gives them something to identify with, for others it’s an emotional release. Many young students are motivated by the challenge and physicality of dance. Movement can be an outlet for creativity and self-expression. Also, students acknowledge that they are doing their best and enjoy self-assessment. When many students acknowledge they are doing well, their confidence level boosts which can be pleasurable and motivational. Just as this is the case, pleasure in movement can motivate students for mastery of movement. The last idea shared by the authors is that many students feel motivated and accomplished by having an audience or teacher watch them and appreciate their work.

Critien & Ollis (2006) worked with professional dancers to examine what engaged them in their craft. This study aimed to describe what is necessary for students to develop in order to become engaged in their work with dance. The results revealed the following themes regarding engagement in dance: preparation, performance, and reflection. The authors suggested dance prepares students for idea conception, and through rehearsal and practice for professionalism. Professionals are engaged by both technical aspects and expressive aspects of practice. Professionals in dance reach for full engagement with the work they are doing through curious inquiry. They ask questions regarding the concepts of the pieces and the concepts behind the
movement choices. Also, professional performers are trained to practice in a reflective manner. Other aspects affecting engagement for professional dancers include: warm-up, amount of sleep, nutritional health, lifestyles, interaction with choreographers, peer dynamics and communal belief, organizational efficiency, performance, personal engaging factor, improvisational ability, dynamics among dancers, audience interaction, and stage crew efficiency. In analyzing aspects of dance that were engaging to professional dancers, the researchers also found that dancers learned to self-judge, take correction, share information with colleagues, understand the audience, and engage with multiple parts of their selves (individual self, relational self, and collective self).

Many of the same themes continue to arise in these studies regarding engagement or disengagement. Group work and social interaction, creativity and composition, a sense of accomplishment, freedom, escapism, self-expression, performance, and professionalism all play a role in student engagement. With regards to the question of how dance can be utilized as an interdisciplinary tool in public education, these results imply that dance can be utilized across the curriculum to stimulate engagement in other content areas. Later I will describe what these results imply for teaching and suggest further avenues for
research. In the next section, I will examine more closely how critical thinking and creativity interact with dance.

**Critical Thinking & Creativity**

Chen (2001) showed through his study that while utilizing constructivist methods for teaching, dance and movement can be tools for stimulating critical and creative thinking. Three themes emerged describing how the teacher used constructivist-oriented teaching strategies to engage students’ critical thinking skills in learning creative dance. These themes include: relating students’ knowledge and ideas to lessons to spark dispositions, encouraging and facilitating students’ inquiries and creative products, and engaging students’ metacognition in refining the quality of dance movement. As Chen pointed out, “The findings in this study suggest that having students draw on their prior knowledge and using relevant information evoked their desire to think flexibly and divergently” (p.374). Chen also pointed out that this does not immediately mean that students will engage in critical thinking skills. He suggests that teachers take on the role of scaffolders for students in engaging thoughtful conversation.

Chen & Cone (2003) produced an extension of the previous study by Weiyun Chen. There was more detail in this article about what occurred with the actual dancing. The results these authors presented together were “links between the teacher’s presentations and instruction
and the students’ levels of creative responses” (p. 174), and “links between the teacher’s teaching cues and images and the students’ levels of dance quality and expression” (p. 177). Referring to both Rovegno (2000) and Clelands’ (1994) work, Chen & Cone noted the three levels of creative performance: limited, divergent, and original. Limited creative performance is when students use familiar movements and shapes to create a sequence. Divergent creative performance refers to when students use movements that are not as plain. Students use a variety of movement methods to create a sequence. Original creative movement is when students utilize unique shapes and create movement sequences that have unique elements to them. Chen & Cone claimed that, “As a result of the teacher presenting sequential learning tasks defined as small steps and interrelated with scaffolding, the students generated original dance movements and unique dance sequences” (p.175).

Chappell’s (2007) pedagogical spectra in teaching for creativity, presented a dichotomy between personal/collective voice and craft/compositional knowledge. Classroom environment and circumstance did play an important role for Chappell’s three subjects—Michael, Kate, and Amanda—in where they fell upon the spectra. Michael was working with children who had very little experience with creative dance and therefore used an approach that included a “gradual sharing of responsibility.” Kate’s group of students “already shared responsibility
for creative activity,” because the students were more experienced. Finally, Amanda “shared responsibility almost immediately” with the students because one of her objectives was risk-taking, even though the students were inexperienced. Although the lack of student experience seemed to be similar to Michael’s students, Chappell noted that Amanda’s students were highly motivated and supported. Amanda and Kate seemed to have similar experiences and were more left-sided along the spectra, whereas Michael was more right-sided. As Chappell noted, “At both ends of the spectrum the dance teachers were therefore sharing responsibility for creative activities with the children, but in different ways” (p. 13). Chen and Cone’s (2003) study found “that the teacher’s use of scaffolding sequential learning experiences, which laid a foundation, helped students create their own dance sequences by organizing movement elements creatively and transforming dance elements into meaningful sequences” (175). This is similar to Michael’s use of scaffolding, by eventually allowing the students to create on their own. So there is supportive evidence of situational responsiveness in teaching regarding the right-side of the spectrum.

Minton (2003) conducted a quantitative study comparing creative thinking abilities of dance students to non-dance students. The main themes tested of the students included originality, fluency, abstractness, elaboration, and resistance. Testing was kept the exact same for all
groups of participants. Significant differences were found for higher originality and abstractness in dance students. Based on the researcher’s analysis, the author stated, “it is possible that participation in dance could have a positive effect on these two aspects of creative thinking” (p.45). This article then suggests that practicing creativity in dance allows students to be more original and abstract in their thinking.

Broadbent (2004) conducted a qualitative study questioning whether schools are providing opportunities which will develop and enhance children’s creative, aesthetic, and spiritual experiences. The researcher noted a definitive progression in the acquisition of the student’s movement vocabulary, as well as clearer articulation of abstract ideas and concepts through movement. There was also progress made as far as the student’s movement ideas and creative abilities. Through multimodal data collection (to include writings, poems, interviews, videotaped dancing), Broadbent pointed out that there was evidence of developed creativity through “the children’s attempts to connect abstract ideas with their own lived experience and level of conceptual understanding” (p. 103).

Manley & Wilson (1980) conducted correlational research designed to study the effects of dance composition on student anxiety. Numerous findings were a result of this study to include: dance students have creative attributes which non-dance students are less likely to have and
there is a correlation between the length of time spent on compositional work and the worth of the product. Both dance and non-dance majors’ scores were significant in comparison to the norm for creative potential. Manley and Wilson (1980) pointed out that this may have been caused by dance being taken out of choice at the collegiate level, therefore causing interest in the subject matter, causing students to care more about the investment of their time, money, etc.

Manley & Wilson (1980) found that three behaviors are attributed to the processes of composition: “openness of the initial structure and content of the problem; exploration activity shown during the solution of the problem; and changes introduced in the structure and content of the problem (Getzels and Csikszentmihalyi 1976:90)” (p.19). Because significantly more time was taken during the improvisation section of the session by dance majors, the authors concluded that the longer amount of time spent on the improvisation, the more worth of the product was found. This is evident in the judges’ scores, indicating relation between the cognitive perception of creativity and improvisational work. Also related to time, the dance majors had significantly shorter compositional work than the non-dance majors. The researchers noted that this may be due to dance majors being able to more effectively and efficiently formulate conceptual ideas. Manley and Wilson pointed out that further
research could be done to regarding time use and its relationship to a dancer's problem-solving skills.

Keun & Hunt (2006) conducted qualitative research to examine the effects of dance education on creativity and critical thinking skills of 7 year olds in Singapore. The findings showed the students to have increased proficiency in creative thinking and problem solving through the utilization of creative dance. The authors’ shared the following other results and compared them with the following literature:

- More risk-taking was present in the movements as the lessons progressed. Beetlestone (1998) and Craft (2000) referred to risk taking as part of the creative cycle. Keun & Hunt (2006) pointed out that risk taking leads to original ideas; although, Tegano et al. (1991) said that the idea may only be original for the individual child, as it is about the creative process that makes the idea original (or new) to a child.

- Many of the students’ portrayed ownership over repeated movements. Beetlestone (1998) said that ownership is another part of the creative process and is cause for motivation in children.

- The authors’ noted that many of the children put immense amounts of focus and energy into their performances. They compared this to Torrance (1995) who stated that creativity “contributes to the pleasure and welfare of the children” (p. 47).
While the students were taught the same skill acquisition and had common structures for their dances, each group still exuded creative ideas and notable differences from the others.

The authors’ final conclusion stated, “Given a supportive environment, structured curriculum and knowledgeable teachers, Primary One students were seen to demonstrate creative thinking and problem-solving skills in the form of original body sculptures, innovative pathways, individual movement patterns and dance composition” (p.53). Keun & Hunt also found that creative dance stimulates multiple intelligences, in specifically, the bodily kinesthetic intelligence. Other intelligences found include: linguistic, music, spatial, interpersonal, and intrapersonal.

Minton (2007) conducted ethnographic and case study research regarding creative dance composition at the middle school level. Observations were made to find out what happens during creative dance composition amongst the participants. The lessons asked students to work in groups, pick out music, compose dance pieces, communicate amongst each other and with the teacher, and evaluate and re-evaluate their work. The participants were divided into groups by the teacher. Each group was provided with the choice of utilized contemporary vocal, classical, or hip-hop music. All of the groups chose to work with hip-hop music. Various forms of communication occurred in group work...
composition. It was mostly evident through facial expressions that the
students were working individually to be creative. The teacher moved
between the groups to provide feedback and encourage students. The
syllabus provided expectations of the students in how they were to
interact with each other and participate in the class. Evaluations of
compositional work were done through questions and discussion
amongst the class about their likes and dislikes. All of this was observed
by the researcher and through the syllabus and lesson plans.

The students’ questionnaires provided insight into each of these
aspects of the research as well. They felt ownership over the dances
because they were able to choreograph the dances themselves, rather
than the teacher. They identified personal talents and the craft of
choreography through practicing it in groups. The dances allowed for
them to express themselves, interact with an audience, and interact with
their peer groups. Some students did not like the teacher placing them in
groups as they would have rather worked with their friends or with
students who were interested in the same product as themselves. Other
students were glad to work with new groups as a way of meeting new
people, enhancing their socialization. One critique of the work is that the
students were unsure of their roles within the groups, and were unsure
as to which role(s) to take on.
In comparing the sources of observer, students, and other literature, the research was interpreted for conclusions. Because the students felt ownership over their work, they felt their opinion mattered, enhancing their self-esteem. This was supported by Riley (1984) and Minton (2001). Through discovery of their personal talents, students discovered their increased abilities to think creatively. This was supported by Jay (1995), Mentzer & Boswell (1995), Kim (2002), and Minton (2003). Minton (2007) was also able to compare her findings regarding choreography with Stinson’s (1993) work, in which students began to understand choreography as a craft better. Students felt a certain freedom through their creations, causing a strong sense of engagement. Finally, the students were asked to create a dance in response to a problem presented by the teacher, thus asking the students to engage in creative thinking while composing.

All of these results have implications for both students and teachers. In answer to the question of how dance can be utilized as an interdisciplinary tool in education, I would respond by saying that it engages critical and creative thought processes. As seen in the literature, dance asks students to problem-solve, to think, to question, and to present material in an original way. It asks students to focus, engage in dialogue, and work together to create a product. Dance requires that students are open to the content or topic at hand. It involves taking risks.
and making mistakes. Finally, it demands introspection and evaluation after completed. Later I will discuss the implications this research has for teaching.

Self-Concept

Trujillo (1981) conducted a treatment/control group designed experiment examining the relationship of participation in Hispanic Ethnic dance to student self-concept and academic achievement. Trujillo found growth in self-concept, positive observable behavior, and cognition in the treatment group. The findings were significant (p < 0.01) according to the correlative outcomes. The five most significant variables (in descending order) were physical self, behavior, family self, self-satisfaction, and social self. All of these variables showed the most growth or improvement from the students in the treatment group. Students from the treatment group also showed significant (p < 0.01) growth on their total self-concept scores and cognitive knowledge testing.

Barton (1982) conducted a case study inquiring as to whether aerobic dance would increase educable elementary school children with mentally retardation fitness levels; and, if as a result, the children would have more positive self-concepts. The Fitness Test showed significance at the 0.05 level, indicating that aerobic dance improved the participants’ fitness levels. The Self-Concept Test showed significance at the 0.01
level, indicating that there is a relation between increased fitness through aerobic dance, and a more positive self-concept.

Kalliopuska (1989) conducted a quantitative study exploring the engagement of dancers with ballet as a hobby. The results pointed to ballet developing and improving students’ self-concepts. As Kalliopuska stated, “Classic ballet promotes the development of sound self-esteem (dancing years & self-esteem correlate r=.46), positive self respect and increase self confidence of the young” (p. 8).

Schubert and Melnick (1997) conducted a qualitative study in which they investigated the effects of integrating art forms across various disciplines. Findings included increased self-concept and positive attitude toward school, students being able to shine in other areas than what they are known at being good for, a more equitable learning environment, stronger information retainment, and increased participation of students. It seems that all of the teachers, administrators and students interviewed over the year-period agreed that arts should be added into the curriculum to improve overall learning experience.

Puretz (1973) conducted a one shot case study to compare the effects of dance and physical education on the self-concepts of selected disadvantaged girls, at the elementary school level. Puretz found each group increased in self-concept scores. According to Puretz, “The result (t=2.66 df. =148) was significant at the five percent level and thus the
hypothesis that modern educational dance positively influenced the child’s self-concept was accepted” (p. 7). The significant difference between mean scores confirmed that modern educational dance did, in fact, contribute to a more positive self-concept than physical education” (p.10). What can be derived from this study is that intrinsic expressiveness of modern dance “appears to have been a factor responsible for the significance of differences” (p.11).

Vicario, Henninger, and Chambliss (2001) conducted a research study assessing the influence of dance education on self-concept for adolescent girls. The researchers found that most girls reported higher concentration and confidence levels due to participation in dance class. Only about ten percent of students “did not feel better about themselves after dancing” (p. 17). The authors found that the more dance experience students had, the more confident and happier they felt. The students with stronger dance abilities felt more relaxed at dance class. Student who had higher dance efficacy were less likely to see dance education as being taught discipline. They also were more likely to feel attractive at dance class and school. Students with low dance efficacy were more likely to feel clumsy while dancing.

The researchers also divided the participants into two groups based on the kind of training the schools provided: competitive (N=27) and non-competitive (N=26). Competitive school students were more
likely to feel self-conscious in dance clothing and less likely to eat dinner before dance class. Students participating in non-competitive schools often felt the following: clumsiness while dancing, dance teaches discipline, and dance strengthens memorization skills. These students also experienced improved relationships with peers at school due to dance class and expressed more sadness when the recital was over than students who perform at competitions all the time.

Lawson-Williams (2007) conducted a one shot case study in which the researcher inquired about how a dance service-learning project would impact student teachers physical education instruction. Through the service-learning project, the teacher candidates were able “to improve their critical-thinking, analytical, and problem-solving skills” (p. 49). They gained confidence in their organizational skills and instructional capabilities. While this does not connect with the other studies based on self-concept due to the participants being young adults, it makes a clear point that a strong self-concept and confidence in the teacher when teaching dance methods is important if to be added to the curriculum. To further this point, the strong self-concept comes from a comfort level provided by continued education. Scaffolding learners will create a comfort level thus creating a stronger self-concept in most instances.

Cassady, Clarke, and Latham (2004) conducted action research to examine evaluation in dance amongst girls. Some students compared
themselves to other students of higher experience which seemed to be causal of lower self-worth. Other students felt evaluating each other was challenging to do. The majority of the students preferred scaffolding by the teacher when evaluating so as to feel comfortable in engaging with the task. This study is different from the others in this section as its aim was not to examine self-concept amongst students (or girls in particular); however, it does provide access to one way in which dance may affect self-concept negatively in young girls through unguided evaluation.

Oseroff-Varnell (1998) conducted a single case study to better understand the communication and socialization processes involved with dance students in a residential arts school. While this study was about communication and socialization, it also spoke to student identity and self-concept. As students worked through socialization processes they were or were not scaffolded by teachers in understanding the messages around them. For example, in the dance classroom, students were given feedback that came off in an unsupportive way, adding to their uncertainty of the message. As students grew to understand the teacher’s form of communication, they learned that the so-called “unsupportive” communication was really positive feedback, letting students know they care for them. If the teacher had informed students of this in the first place, growth for the student could have happened sooner, allowing for their self-concepts to be more positive.
Meekums (2008) conducted qualitative research examining if Dance Movement Therapy (DMT) helps children to develop emotional literacy. The researcher observed the following movement metaphors to show increased emotional literacy: success and mastery, special and powerful, hide and seek, attachment, loss and endings, and ritual. Meekums wrote it is, “possible to conclude cautiously that DMT is an appropriate intervention for children who need to develop emotional literacy, contributing to the development of self-esteem, emotional expression and regulation, and social function” (p.108). While my research speaks more to creative dance, I believe DMT provides implications for creative dance teachers into helping students discover emotional literacy within the classroom. Freedom is a major theme in this study, in that students are provided the freedom to self-discover and self-express. The other studies in this section on self-concept also point to students having the freedom to express their selves.

The results from the literature provided a clear view into how students grow through dance in images of their own selves. As students view their physical self improving, their self-concept also improves. Behavior sometimes improves, family interactions sometimes improve, emotional literacy (EL) grows, and often self-satisfaction improves as a result of dance. Students gain self-respect and self-confidence through mastery of technique and the freedoms creative dance offers. As a result
of a more positive self-concept, students often have a more positive attitude towards schooling.

**Holistic Approach**

Kentel and Dobson (2007) conducted qualitative research inquiring as to how to dissolve boundaries between the body and mind in order to promote holistic approaches to learning. The authors claimed that the most inventive learning takes place on the playing field and has to incorporate movement. Because the participants were most engaged through a mind-body connection in that environment, it seems reasonable to say that perhaps American schools are too lethargic in their educational conventions.

Goral (2007) conducted a qualitative study to determine if fractions can be taught successfully through the utilization of a more holistic approach to include the arts (specifically music and movement). Not only was this article useful in explaining the advantages of movement in teaching math, but it also portrayed movement as one part in a holistic approach to teaching. Obviously, movement worked better for some students, while music or language arts worked better for others. All three art forms acted as a scaffold for students when learning fractions and their comparison to whole numbers.

Rovegno and Gregg (2007) conducted qualitative research to determine if, how, and to what extent folk dance will contribute to a more
holistic method of teaching. What this study pointed out, unlike some of the other studies in this section, is that teachers must be careful in utilizing dance or other content areas as part of a more holistic approach to teaching their own content. This article is important because it reminds us to examine if we really understand what we are teaching, and if we are teaching children something incorrectly.

Stinson (1975) produced quantitative research questioning if learning is measurable through creative dance. The researcher found trends amongst experimental students learning and control students, even though not all of the trends were of significant value to be credible. Few of the studies were at the 0.05 level. Stinson (1973) suggested that, further refinements of the test instrument and further tests of its reliability seem called for. In addition, it should be noted that this study makes no attempt to determine the long range effect of classes or the effect of a longer period of instruction; or to answer other important questions related to creative movement, including the effect, if any, of classes on self concept, cooperation, and learning and creative behavior in other areas. (p. 45)

In a more qualitative aspect of this research, a journal was kept by the dance teachers in which student enjoyment was noted, as well as increased good behavior. The teachers also noted in such journals the specific improvements in dance class. If this study is to be utilized to
promote creativity in dance, I would point to the idea of dance being utilized as part of a holistic method because it provides students with a way of presenting creative ideas related to whatever content they may be studying.

Werner (2001) conducted a quantitative study interrogating how integrating dance and math in an intense co-teaching model of integration will affect student attitudes toward learning math. The first t-test results show that there was a significant difference between the dance/math students’ and the non-dance/math students’ attitudes toward math, for the reasons of stronger motivation, more ways to express math than just paper and pencil, more able to transfer knowledge across content areas, and stronger engagement. The second t-test results show that dance/math students were either more positive in their attitudes toward math or else there was no change. The reverse was the result for non-dance/math students—they were either more negative in their attitudes toward math or else there was no change. Finally, it was noted by the teachers that dance/math students were more likely to be engaged in the material and make connections within each content area, than non-dance/math students.

Keinanen, Hetland & Winner (2000) conducted two meta-analyses in order to examine if dance instruction can lead to increased skills in reading and nonverbal reasoning. One meta-analysis produced
inconclusive findings, while the other study produced significant results. The second meta-analysis asked if dance instruction could improve nonverbal reasoning. Positive results were yielded. The researchers found there is a relationship between dance instruction and nonverbal skills. One possibility for the improved reading scores of students was engagement in the material. Dance instruction engages students and as a result, creates a positive outcome in other content area. So as far as holistic approaches are concerned, dance can be utilized as a method of engagement for students.

MacDonald (1991) conducted a case study examining junior kindergarten through 3\textsuperscript{rd} grade teachers’ attitudes toward and practices of creative dance. Findings from the three sources of research (interviews, journals, and MacDonald’s field notes) pointed to creative dance being engaging for students, as a good mechanism for alternative and integrative teaching, and assisting with whole child development. All of these findings were based on opinion, some of which were not seen by the researcher.

Oreck (2000) conducted a mixed methods study to examine characteristics and attitudes of teachers who would be more likely to utilize arts within the classroom. Through the author’s analyses of the interviews with the participants, the following results were found about
the characteristics teachers had in being successful in integrating the arts. I will list them as they are written in the text:

1. These are highly independent individuals who have made choices about where, who, and what they teach.

2. These teachers are aware of constraints and pressures but are relatively unaffected by them because of their proven effectiveness as teachers.

3. All of the teachers had an interest in the arts though not all had formal instruction before participating in staff development. They felt that staff development workshops with artists had been key in their ability to implement arts processes in their teaching.

4. The teachers tended to have a particular art form specialty in teaching which led them into the other arts.

5. The teachers have a broad definition of art. They see the art in all areas of their lives and throughout their teaching.

6. The teachers have strong beliefs that all students are capable of high achievement.

7. The teachers do not see the arts as a separate subject. They integrate art activities into many subjects for a variety of instructional purposes. The arts are just as likely to inspire a project as an academic subject.
8. The teachers articulate a wide range of clear performance and personal growth goals for students in the arts.

9. Each teacher has found multiple ways to use the arts and to play a variety of facilitator roles based on their own strengths. (pp. 12-20)

Oreck pointed out that these teachers’ attitudes are in support of the arts and they work to utilize their specific skills in relation to art, as facilitators of art. Finally, Oreck also stated that these teachers shared consistent support of their students as artists.

Students will be at a real advantage if dance is integrated into other content areas. Dance can provide students with the freedom of movement, enhancing the body-mind connection; therefore, increasing total understanding of content. Also adding to the total understanding of content is dance acts as a scaffold to the students’ learning. While dance doesn’t always help students learn content better, it can be a source of enjoyment, engagement, motivation, and creativity for the students in effort of a more holistic approach to learning.

Implications for Teaching

How can dance support student learning in the classroom and across the curriculum? Using the research question to guide the following section on implications for teaching, the findings are discussed in two ways: 1) to examine how teachers can support student learning
through dance education in itself, and 2) to examine how teachers can support student learning through integrating dance into other discipline areas. The discussion of classroom implications will take place through examining each theme derived from the research: engagement, creative and critical thinking, self-concept, and dance as part of a more holistic approach to learning.

In my own experience as a dance student I have taken only classes that were taught in more traditional manners. In my experiences as a dance educator, I have witnessed the remarkable effects of constructivist teaching within the dance classroom. The entire engagement discussion points to constructivist methods of teaching as a conductor of engagement. This is seen through Stinson’s (1997) and Bond & Stinson’s (2001) examinations of freedom and transcendence, through Bond & Stinson’s (2007) findings related to dance allowing for student autonomy, and through Critien & Ollis’ (2006) studies of preparation, performance, and reflective processes. Because dance allows for such constructive processes, and engages students in their learning, a dance educator within public schooling would be sorry not to teach in a constructivist manner.

If a non-dance educator were to employ dance as part of their teaching for a different content area, knowing what engages students through dance allows the teaching to be more efficient. Teachers should
provide students with the freedom and autonomy to create their own
dance pieces or improvisations, and perhaps students should even have
decision-making to do as far as the content of what they are working to
understand through dance. As teachers work with dance in their own
content areas, students should be provided sufficient time and scaffolded
in their preparatory work, they should be given a fair chance to perform,
and students should engage in reflective processes in order to cement
their learning.

The research on creative and critical thinking is deeply rooted in
constructivist teaching methods as well. In order for students to be well
supported in their learning in regards to the ways the critically and
creatively think and examine the world, teachers must scaffold new
learning with prior knowledge (Chen, 2001; Chen & Cone, 2003). The
research pointed out that dance students often have more creative
thinking abilities, higher levels of abstractness, and higher levels of
originality, than those of non-dance students (Manley & Wilson, 1980;
Minton, 2003), which implies the importance of utilizing dance or other
art forms across the curriculum. Asking students to be in touch with
these kinds of thinking will support and push their learning.

If utilizing this research as a tool for dance teachers, it is
important to understand the teacher’s background. If dance
professionals are raised in the competitive and technical dance world,
they may be tempted to teach in the ways which they were taught, which can be harmful. As seen in the literature regarding self-concept (Vicario et al., 2001; Cassady et al., 2004), competitive environments made students more self-conscious and judgmental of themselves and their peers. Promoting a non-competitive environment can result in clumsiness or laziness in class, but it also promotes increased discipline, increased memory skills, and improved relationships with students’ peers. It is important to be aware of such differences in order to better support student learning.

It is also important for teachers of other disciplines to look at their understanding of the dance types they may utilize within their classrooms. Rovegno & Gregg (2007) expressed concern for the authenticity of the dance forms chosen to use within other disciplines. Teachers deciding to use dance in their classrooms should be sure to examine their own understandings of dance before they try to teach it. For example, if I were to teach students about African culture and tried to teach them African dance, I may not be providing students with an authentic learning experience as I may teach something incorrectly, or be missing important information regarding the culture of Africa in relation to the dance I am teaching. Even after assessing one’s knowledge in relation to dance, teachers should still continue their education in dance to continue to gain confidence in their multimodal teaching abilities. If
dance forms are taught incorrectly, they lose their richness for what they are, and students are misinformed. This is not a supportive teaching practice for students.

There are many positive implications for utilizing dance as a more holistic approach to teaching to include the themes of increased engagement, engaged critical thinking and creativity, and enhanced self-concept. Other reasons include, but are not limited to: dance acts as a scaffold to the content, utilizing other modes of learning helps students find ways to transfer knowledge across other content areas more easily, it can provide a venue for funds of knowledge, using dance is a way to switch things up for students, and it may help students have a more positive attitude toward the original content. Possible negative implications for using dance in the curriculum include, but are not limited to: some students and/or other community members may not enjoy your choice to use dance, and some students may feel uncomfortable or bad about themselves if asked to dance.

The literature I have engaged with in this paper all point to the following suggestions for teaching dance so that students will learn. Teachers must find a way to make the knowledge relevant to each student in some way. In order to engage critical thinking, teachers must relate all dance instruction to the students’ prior knowledge. This must occur through sequential planning of the curriculum. As a teacher, one
must encourage students to engage in inquiry, dialogue, and metacognitive moments to stimulate their thinking and produce understanding. Not only should the students be metacognitive in their thinking, but the teacher must be metacognitive about the students thinking, in order to be responsive and differentiated to the students during instruction. Engaging in these suggestions for teaching is the beginning to creating a supportive and respectful environment for dance students. Based on the literature, and out of personal opinion, the findings suggest dance teachers should be constructivist in their teaching methods and allow students the freedom to create meanings for themselves in dance class.

Limitations & Suggestions for Future Research

There were many limitations to this research, as well as places where I wanted to learn more. The authors of the literature also spoke to their own personal limitations in their research, and where they would like to see their research assist others in the future. I will now examine these limitations and suggestions for future research.

There were many aspects of each of these studies limiting my ability to fully grasp each theme. Below I have listed some of the limitations I see in my research:
• The age groupings I aimed for in my research were K-12. Many of themes examined spoke to specific age groups, including some outside of my specifications. Not all ages were covered for every theme.

• Participants were from varied backgrounds—some were of different cultures, some were of extreme groups, and the list goes on.

• My focus in my research was on Western dance forms, specifically creative dance.

• Some of the studies were unclear about particular parts of their research, such as the methodology or participants, limiting my complete view of the research.

• Being a dance professional myself, I hold my own biases regarding dance, and therefore find myself more willing to agree with many of the positive associations with dance in the literature.

While I know these are not my only limitations, they are the ones that jumped out at me the most often during my research. The following is a list of ideas for future research from the authors of the literature I reviewed:

• “issues in arts education, particularly the current emphasis on cognition and standards, and the necessity to listen to the voices of young people as we make policy decisions that affect their lives” (Stinson, 1997, p. 67)
• Extension of understanding young people’s experiences of effort and engagement in dance through other cultural forms of dance than Western forms (Bond & Stinson, 2001)

• “supportive and non-supportive conditions (social and environmental influences) necessary for engagement in dance” (Bond & Stinson, 2007, p. 177)

• “highlight the specifics of an environment conducive to the emergence of dance expertise” (Critien & Ollis, 2006, p. 198)

• “further study could investigate how students use other critical thinking elements such as problem-solving, decision-making, cooperative skills, and Metacognition to learn the less structured content in relation to teachers’ teaching actions” (Chen & Cone, 2003, p. 184)

If I could offer my own ideas for topics I would like to cover in the future, they would be:

• to cover more research on men and male issues with dance

• prevalence of eating disorders in dance students and ways to handle such issues

• how dance can be of use to extreme populations, such as inner cities or troubled areas
Conclusion

Chapter One introduced the research question and the controversies surrounding it: how can dance education support student learning within the classroom and across the curriculum? Dance education is often overlooked as an important part of the curriculum in supporting student learning due to a lack of resources, lack of research in regards to the benefits of dance education, and legislation is focused on other content areas such as math and language arts. Not only is dance left out of being its own curricular area, but many teachers overlook using it within their content areas due to lack of time, resources, or knowledge of how it will help support student learning.

Given this information, Chapter Two provided a deeper look into the history behind these issues. It outlined the rise of arts education in public schooling and dance education within the United States. It stated that arts education saw its demise upon the launching of the Soviet missile Sputnik, where the United States was anxious to return to “core” curriculum and cut the arts. Even though arts education is on the rise again, research is necessary to explain its importance. Chapter Two also discussed how dance education is beginning to hold equal importance to that of other art forms. While it has the same acknowledgements from the government and legislation, its presence is still missed in numerous schools across America. The chapter finally pointed out that it is up to
dance educators to expose how dance can support student learning in order to make way for dance educations’ future within public schooling.

Chapter Three critically reviewed recent literatures regarding the ways in which dance can positively impact student learning within the classroom and across the curriculum in K-12 education. The research described the ways creative dance engages students, enhances their critical thinking and creativity, impacts their self-concept, and how it can be used as part of a more holistic approach in teaching other content. Each of these studies were reviewed, critiqued, and synthesized. I examined many arguments that supported the inclusion of movement and dance as its own subject within public schooling and across the curriculum. I did not find any studies that directly opposed it, but did examine some potential issues dance education could create. This chapter will include more of an integrative examination of common themes, ideas, and arguments found within the literature as a conclusion. This chapter contains a summary of the findings—based on the four sections of Chapter Three: Engagement, Critical and Creative Thinking, Self-Concept, and Dance as Part of a More Holistic Approach. Following the summary of findings, Chapter Four discusses implications for classroom practice, suggestions for further research, and final conclusions.
In Chapter Four I have touched on the four themes relevant to my question of how dance education can support student learning within the classroom and across the curriculum. The research on engagement found that students are supported in their learning of dance through being engaged with dance. This is due to the freedoms dance provides, the focus it requires, the feelings of transcendence it can offer, the personal and emotional connections they may have with the work, the sense of autonomy it has the potential to impart, the preparation it takes, the possibility of performing, and self-reflection. Researchers found that disengagement with dance can be caused by fear, lack of confidence, and dislike of too hard or too easy work.

The literature on critical thinking and creativity found that constructivist methods of teaching are important to employ in engaging students critical and creative thinking. The constructivist methods found to engage such thinking are: risk-taking, taking ownership of work, group work, student constructions, scaffolding, inquiries, Metacognition, and problem-solving. The literature pointed out that more freedom in these methods can be provided to students with more experience. The research also stated that students who engage with dance education are more likely to be well-versed in critical and creative thinking than those who are not involved with dance education.
The self-concept analysis found students with more positive self-concepts from their experience with dance education due to: personal growth of physical self, behavior, family self, self-satisfaction, and social self; increased fitness levels; intrinsic expressiveness and the ability to be creative; increased emotional literacy; and student understanding of the tone of the teacher’s feedback. The literature also stated that when incorporating dance art forms into the curriculum, students have increased self-concepts and more positive attitudes toward school. This is due to being able to shine in more areas than what students are typically known for, integration of the arts allows for a more equitable learning environment, stronger information retention, and increased participation of students.

The research on teaching dance as part of a more holistic method of teaching pointed out that incorporating dance into other content areas supports student learning by acting as a scaffold to students, providing stronger motivation and engagement for the students to learn, and allowing more non-traditional methods for expression of understandings in the content area. Students find enjoyment and have increased good behavior in dance class which could cross over into other content areas. Finally, the Holistic Approach section discussed that there are certain qualities, characteristics, and attitudes with which teachers will have more success incorporating the arts into other content areas than others.
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