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Arts-Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension Of Short Stories And Self-Confidence In Reading Skills

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ARTS-INTEGRATED TEACHING OF ENGLISH
LITERATURE: USING DANCE MAKING
METHODS TO ENHANCE HIGH SCHOOL
STUDENT COMPREHENSION OF
SHORT STORIES AND
SELF-CONFIDENCE
IN READING
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ABSTRACT

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The purpose of this study was to investigate the benefit of utilizing creative dance making methods in the study of literature at the high school level. The researcher developed the following essential questions to investigate how dance making impacts student performance on comprehension questions as well as what impact this has on student confidence and self-efficacy:

Q1   What effect does the use of dance making methods have on student comprehension of short stories?

Q2   What effect does increasing the amount of dance creation time have on student comprehension of short stories?

Q3   What effect does the choreographic process have on student confidence in their own knowledge and critical reading abilities as it relates to the study of English literature?

To explore these questions, ten high school students at a private studio participated in a series of three workshops in which they engaged in the creative dance making process to turn their understanding of short stories into movement. The research methods utilized included pre- and post-tests that were developed by the researcher to address the essential questions. Some limitations of the study included the small number of participants, their level of familiarity with dance making, and the workshop processes being led by the researcher. Furthermore, the research instruments were not tested for reliability or validity.

From the analysis of the data, it may be suggested that creative dance making does have a positive impact on student comprehension of short stories. A theme of improvement in student

comprehension scores was identified across the three workshops as the amount of dance making time increased. Additionally, the participant response to the impact of creative dance methods on self-confidence in personal reading skills indicated that the creative dance making processes did result in an improvement in student confidence and self-efficacy. The goal of this research was to provide support for the benefits of incorporating dance within the study of core content as well as to reflect the benefit of dance as its own academic subject within the K-12 curriculum.

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CHAPTER I

INTRODUCTION

Goal of Thesis

The pursuit of optimal instructional delivery methods is at the heart of every teacher's work in the classroom. It is not enough to simply know what to teach but knowing how to teach can often prove to be the more challenging aspect of a teacher's role. This topic has been the focus of researchers and instructors since the beginning of formal education and has resulted in a plethora of educational philosophies, from teacher focused to student centered.

While the spectrum of these philosophies can vary, it cannot be ignored that, as Sadker and Zittleman put it, "by measuring school effectiveness with yearly reading and mathematics exams, we have created perverse incentives to 'teach to the test'" (21). This focus on examinations has resulted in an American school culture that dedicates "less school time to subjects that are not tested, like science, social studies, history, geography, foreign language, art and music," and instead places significant pressure on teachers to utilize whatever means necessary to boost student test scores, often leading to teacher-centered philosophies being favored for their quick and clear dissemination of information to students (21). As a result, students engage primarily in rote memorization, "a straight line process requiring none of the depth of understanding that comes from whole brain activation. In short, rote memory does not require thinking" (Hannaford 97). Anne Green Gilbert argued that this engagement in rote memorization results in children who are disengaged with the learning process (5). While the memorization of facts may be a useful strategy for boosting test scores, the reality is that it

requires no depth of knowledge on the part of the students and creates only a temporary façade of learning, which inevitably fades.

Given these findings, what is the best practice for creating depth of knowledge? Carla Hannaford presented the argument that movement and emotion are key elements in the learning process to build learning connections. According to Hannaford, "memory appears to be a free form information system that facilitates information retrieval from all bodily experiences instantly and simultaneously. Therefore, in order to most efficiently remember something, it is best to connect it to sensory, emotional, physical episodes" (70). By considering the intersection of sensory, emotional, and physical learning experiences, it is easy to see the benefits of the arts to education for their hands-on, physical engagement with subject matter and their inherent ability to serve as an emotional outlet.

However, the arts have been especially deemphasized within the educational system, often deemed as 'extra-curricular' activities not worthy of equal attention to that devoted to primary subjects. In 2012, the National Center for Education Statistics published a survey comparing 1999-2000 school year data on Arts Education in Public Schools to data from the 2009-2010 school year; this survey reflected that the number of schools offering music classes remained steady while the number of drama, dance, and visual art programs declined from 1999 to 2009 (Parsad and Spiegelman 5-9). Conversely, a legislative brief published by the National Conference of State Legislatures in 2012 reported that "ninety-three percent of Americans consider the arts vital to providing a well rounded education" and "twenty-seven states define the arts as a 'core' or 'academic' subject … which puts the arts on equal footing with other core subjects considered essential to a well-rounded education" (Shelton). While the data reported by Shelton would indicate that there is ample support for the arts, the surveys also show that this

support has not translated into a positive increase in student access to school arts programs. Still, there is hope that this trend may change with much research beginning to be conducted into the benefits of engaging in the arts as well as using interdisciplinary teaching methods to incorporate arts into primary subject instruction.

Such research has shown that dance is uniquely suited for incorporation into the classroom for its distinct ability to meaningfully connect the three critical elements Hannaford outlined (sensory, emotional, and physical learning experiences). Beyond the anticipated benefits of dance in promoting physical health, developing coordination and flexibility, and providing an outlet for creativity and imagination, dance also has been proven to result in many other benefits including emotional development and regulation, increased teamwork and collaboration, increased self-awareness, and increased self-confidence (Walter and Sat 77-97, Giguere, "Dancing Thoughts" 5-28, Salo 9-64). Additionally, in *Using Movement to Teach Academics,* Sandra Cerny Minton connected the use of dance as a multi-sensory instructional tool which engages the kinesthetic and possibly auditory senses if combined with music and the visual sense if incorporating props or visual aids, enabling students to connect personally if they are permitted to engage in the creative process (2).

Further research from Antonio Damasio and Hanna Damasio; Robert and Michèle Root-Bernstein; Carla Hannaford; Ofra Walter and Enju Sat; and Lindsay Lindberg et al., has presented the connection between movement and the learning process. For example, the Damasios asserted that the connection between the body and mind is cyclical, with the body sending signals to the brain and vice versa (20-21). Similarly, the Root-Bernsteins established the value of the arts and creative thinking to education through their assessment that experts in various fields do not silo their knowledge by subject, but rather they think universally. By

teaching each subject individually, teachers do students a disservice and hinder the type of creativity that leads to ingenuity and novel discovery; therefore, "nothing could be more important … than recognizing and describing the intuitive 'dialects' of creative thinking" (Root-Bernstein and Root-Bernstein 13). The establishment of the Root-Bernsteins' thirteen specific creative thinking tools (including 'body thinking') has been indispensable to the development of best practices in arts integration, and their research is described in many later studies. Proponents of dance and movement in schools look to the Root-Bernsteins' research as key to establishing the importance of movement to creative thinking. As the Root-Bernsteins so deftly put it, "to think is to feel and, conversely, to feel is to think" (174). Finally, inspired by work conducted by Giguere, Lindsay Lindberg et al. drew connections between dance and the learning process through dance improvisation. These researchers considered how dance can be used to support the learning, ultimately concluding that dance can be considered, "a cognitive tool for autonomy, sense- and meaning-making" (Lindberg et al. 9). This embodiment of the meaning-making process is something only movement can provide, thus positioning dance as a particularly advantageous tool in the learning process. While Lindberg et al. used improvisational dance as the basis for their own study, the creative dance process as a whole also reflects this same benefit of autonomy and meaning-making.

With clear evidence that movement is in fact vital to the process of gaining and assimilating knowledge, research must now move forward to reflect methods through which instructors may successfully incorporate movement effectively into the classroom. This study aimed to further arts-integration research and discover the connection between the use of dance making processes as a method of instructional delivery and its impact on student comprehension of short stories as well as self-confidence in their performance.

Purpose of Study

Reading comprehension will always be an important aspect of modern culture. With so much communication today being conducted via written forms, it is vital that students learn to read thoroughly and understand what they are reading. Not only are students tested on reading comprehension, but they also must be able to read and respond to math word problems and write out scientific names with Latin roots. Even the process of completing examinations properly relies on students' abilities to read and comprehend the instructions given for how to complete the exam.

Yes, students will always need to utilize critical reading skills, but the question remains how to best teach these skills, and why do some students learn them better than others? Mark Sadoski noted that reading scores on the National Assessment of Educational Progress have seen "no statistically significant change for 17-year-olds since 1971, and statistically significant but small increases for 9- and 13-year-olds…. On a large scale, appreciable and lasting improvement has been hard to come by" (331-332). If these statements are to be believed, then current instructional practices in reading comprehension seem to be incomplete, leaving students with underdeveloped reading skills by high school.

However, Sadoski asserted that "a promising source of progress may be found in the changing world of cognitive theory" specifically within the move toward embodied cognition (332). This idea of focusing on cognition, how we know what we know, and the ways in which the brain collects and assimilates information has been the focus of study for many decades now, but the emphasis on *embodied cognition* seems to be a new direction of study with promising results. Thelen et al. explained this idea of embodied cognition best:

>To say that cognition is embodied means that it arises from bodily interactions with the
>
>world. From this point of view, cognition depends on the kinds of experiences that come

from having a body with particular perceptual and motor capabilities that are inseparably

linked and that together form the matrix within which reasoning, memory, emotion,

language, and all other aspects of mental life are meshed. (Thelen et al. 1)

Proponents of embodied cognition assert that all experience takes place through the lens of

humans operating within bodies, and thus one must take the body into account when considering

how people obtain knowledge (Lindberg et al. 4).

One field of psychology and educational research that utilizes the idea of embodied

cognition is 4E Cognition. This developing theory of cognition, which delves into "the roles of

body, action, and interaction in the constitution and functioning of the mind," considers the

process of gaining knowledge to be "Embodied, Embedded, Extended, and Enactive" (Henley

130). This extends the embodied cognitive theory to also conclude that cognition happens in the

mind (embedded) which cannot be separated from the body (embodied), is situated within a

cultural context with which the individual interacts (extended), and takes place equally through

action and perception (enacted) (Purvis 150-155). Therefore, by using a 4E Cognitive

perspective in the classroom, instructors aim to engage the whole student—body and mind—to

activate all aspects of the cognitive process for a deeper learning experience.

Through this lens, arts-integrated instructional methods, and specifically dance-

integration, may in some ways be seen as an act of 4E Cognitive instructional practice. Minton

described the use of dance integration as active learning that "helps students understand and

remember information…. Research shows that active learning is more effective than traditional

problem solving, stimulating curiosity and independence, and creating positive feelings about

school" (1). This active learning, which is engaged through dance-integrated teaching methods,

also activates the brain-mind-body connection, where, "the body and brain penetrate and influence each other in a reciprocal way and can be thought of as a single system" (Minton 8).

Minton's multi-directional flow of information closely reflects both the embodied cognition and 4E cognition philosophies in the importance of the body to the learning process. Students engage in active learning when they participate in dance, thereby activating the brain-mind-body connection. By incorporating dance into the academic classroom, teachers are able to tap into a powerful learning tool that fully engages students in the cognitive process. Furthermore, when students engage in dance making, they are provided the opportunity to explore and express their understanding through kinesthetic sense and embodied cognition, developing a level of knowledge that is not possible through linguistic modes alone; the employment of the body adds an additional layer of knowing and expressing knowledge that may transcend what students are able to express verbally.

While it is clear that dance integration can be a useful tool for engaging students in the learning process, much of the research into arts integration has focused on younger age groups (middle school and below) and artforms other than dance. Of the studies that do investigate dance, one theme rises to the top: dance is a useful tool for the instruction of academic subjects. The majority of these studies focused on arts integration with math and science topics. While there have been a few studies considering dance in high school English classrooms, these primarily focus on the study of poetry or creative writing. Little can be found on the use of dance methods for the instruction of prose, though there is ample research into the various benefits of dance to indicate its suitability for integrating it into the high school literature curriculum. Thus, there is a gap in research on the use of dance methods in the instruction of literature, especially at the high school level.

Through this study, the problem to be considered is the effect of incorporating dance making methods into the study of literature at the high school level where research into arts-integration is lacking. The researcher developed the following essential questions to further explore this problem:

Q1 What effect does the use of dance making methods have on student comprehension of short stories?

Q2 What effect does increasing the amount of dance creation time have on student comprehension of short stories?

Q3 What effect does the choreographic process have on student confidence in their own knowledge and critical reading abilities as it relates to the study of English literature?

Guided by Minton's *Using Movement to Teach Academics* and previous research studies into the use of dance methods in English classrooms, the researcher developed a workshop series to guide high school students through a creative process to "transform concepts into movement" (Minton 3). Through these workshops, the researcher explored the level of impact the dance making process had on students' understanding of three short stories as well as how this process impacted the students' own confidence in their critical reading skills. The ultimate purpose of this work is to create support for the growing arts-integration movement, to encourage the use of dance in academic classrooms, and to provide research into a demographic and academic topic that has yet to be fully explored.

Significance of Study

This study intends to build upon previous research indicating the benefits of incorporating dance instruction in the English classroom. Studies have shown how dance can be utilized in combination with writing and poetry units, but little research has been conducted into the connection between dance and literature, especially at the high school level. In 2016, Toni Duncan released research into the use of dance techniques to teach poetry to middle and high

school students, concluding that the dance processes utilized did in fact improve student learning of poetry. That same year, Paul R. Spitale II released research into the use of embodied learning in the English literature writing classroom at the college level. This study, while not focused on dance specifically, found that movement did improve student learning:

> …the use of improvisation and other embodied techniques in the classroom seemed to support literacy in ways that helped students make new connections, demand new textual perspectives, inform their writing, change their interpretations, form and become an active part in affinity groups, and pursue an active participation in literacy. (Spitale xvi)

While both of these studies (and others discovered by the researcher) considered various elements of the English language arts classroom, none of the studies looked into the use of dance in the high school literature classroom.

By focusing on dance making methods in the study of literature at the high school level, the researcher of this thesis hoped to bridge the gap between ample research conducted at the elementary and middle school levels and the growing body of work conducted at the college level and provide support for using dance making methods in English instruction at all levels. In addition, this study may provide support for the use of dance throughout all aspects of an English curriculum. The benefits of dance to the study of poetry, creative writing, and literacy having thus been established in previous research, this study aims to round out the body of work into the use of dance in the English classroom by considering its missing content area: literature. By adding to this line of study, the researcher seeks to provide support for the incorporation of dance into the English classroom, as well as to demonstrate the merits of dance to learning at the high school level.

This study also builds upon research relating the benefits of dance instruction to student confidence in their abilities as critical readers (also known as 'self-efficacy'). Anita Woolfolk Hoy wrote in *Educational Psychology* that "students with high self-efficacy usually focus on strategies for succeeding next time. This response often leads to achievement, pride, and greater feelings of control" (476). While much research has been conducted into the connections between dance and confidence as well as dance and student performance in the English classroom, the researcher could find no research into dance instructional methods and student confidence in their critical reading abilities.

Based on Hoy's statement and current understanding of how motivation impacts learning, it stands to reason that a student's sense of self-efficacy would be a vital element in the success of any educational program. Research shows that students' understanding of their own abilities and whether they hold a fixed mindset or growth mindset carries significant impact on their learning as they approach high school. According to Hoy, "Students who hold a *fixed mindset* tend to set performance-avoidance goals to avoid looking bad in the eyes of others," while, "in contrast, holding a *growth mindset* is associated with greater motivation and learning" (479). In order to hold a growth mindset, students must believe that their own effort plays a part in their learning; in other words, they must believe that the steps they take in their education contributes to their learning.

In this study, the researcher asked students in pre-and post-tests to consider their level of confidence in their abilities as critical readers. Through these questions, the researcher looked to assess the degree to which the dance making process impacted the students' sense of self-efficacy. The significance of this line of questioning is in the value it brings to the study of educational practices. If dance making methods do in fact increase students' sense of self-

efficacy and confidence in their abilities when compared to their level of confidence after reading the text on their own, then a logical connection may be drawn to the benefit of incorporating dance making into the English classroom. Not only has dance been found to improve student scores and ability to learn specific English language arts content, but this impact on self-efficacy has implications for continued student achievement as a result of their improved confidence, which supports students continued growth as effective learners beyond this specific content area.

CHAPTER II

LITERATURE REVIEW

The relevance of fine arts in developing education philosophies cannot be understated, yet the value of the arts continues to be overlooked by the masses. In an attempt to appeal to the current cultural capital, it is necessary to consider how the arts can help students achieve academic success—though to those who actively engage in the arts, the benefit goes far beyond that of simple academic performance. First, one must consider how the brain creates knowledge, then they can apply arts-integration practices to these cognitive processes and develop ample support for arts-integrated teaching methods.

This chapter provides an overview of this cognitive process, considering how movement is involved and specifically how dance can contribute to cognition. Next, the chapter conveys popular arguments for why teachers should incorporate arts into the classroom. This is then followed by a consideration of how dance has and can be utilized in English classrooms. Finally, the chapter concludes with a reflection on the impact that dance can have on student confidence and self-efficacy.

Thinking with the Body:
Dance and Cognition

The process of learning is far more complex than simple repetition or rote memorization. To truly learn in a way that allows for complex thought and application of skill, one must engage in a process of connecting new information to prior knowledge. The *Encyclopedia Britannica* described cognition as "…all conscious and unconscious processes by which knowledge is accumulated, such as perceiving, recognizing, conceiving, and reasoning. Put differently,

cognition is a state or experience of knowing that can be distinguished from an experience of feeling or willing" (Brittanica). If cognition is the process through which humans collect information, then it stands to reason that this is a skill which can be honed and refined over time.

Through the work of psychologist Jean Piaget, researchers now understand several basic tenants of cognitive development including four basic factors that create changes in thinking: "biological maturation, activity, social experiences, and equilibration" (Hoy 46). The fourth factor, equilibration, is Piaget's theory that humans are always seeking cognitive equilibrium through a process of comparing new information to current schemes and either assimilating that knowledge into the current schemes, or creating new schemes based on the new knowledge. While biological maturation is something that can only change with the passage of time, activity, social experiences, and equilibration are all elements that can be used in the incorporation of dance choreographic practices into instruction. Hoy instructed educators to incorporate these elements regularly into their instructional practice. She wrote:

> All students need to interact with teachers and peers in order to test their thinking, to be challenged, to receive feedback, and to watch how others work out problems. Disequilibrium is often set in motion quite naturally when the teacher or another student suggests a new way of thinking about something. As a general rule, students should act on, manipulate, observe, and then talk and/or write about (to the teacher and each other) what they have experienced. (Hoy 64)

From this description, the value of arts to the learning process becomes evident through the hands-on nature of the instructional practice in the arts, which also can connect with class discussion and peer review. Where dance is particularly beneficial is its ability to connect with emotion and provide a physical context with which any topic may be considered.

The Role of Movement in Cognition

While there are many aspects of cognition that have yet to be discovered, what is currently known is that movement and the functions of the body play a pivotal role in this process. As referenced previously, Antonio and Hanna Damasio described the body and brain as separate entities that interact with one another through chemical and neural signals (17-19). As human beings who are bound to the bodies in which we inhabit, this intimate connection is a continuous process "that unfolds in time, within different regions of the body and within mental space as well. Mental states cause brain states, which cause body states; body states are then mapped in the brain and incorporated into the ongoing mental states" (Damasio and Damasio 17). In other words, the body and mind not only transmit information to one another, but they also adjust their functioning based on the feedback they receive from the other.

Psychologist Scott Grafton relayed the importance of this connection in his new book *Physical Intelligence: The Science of How the Body and the Mind Guide Each Other through Life*. Through this text, Grafton presented the case that physical intelligence occurs subconsciously in order to free up the brain for higher cognitive functions, yet it is nevertheless continuously present. As Grafton stated, "It is foundational, a kind of knowing that frames much of what the mind spends its time engaged in" (x). Chapter by chapter, Grafton discussed the various physical and mental processes that take place for even the most basic life functions to occur. In considering how these processes described by Grafton can be related to students in the classroom, one must recognize that while students are participating in the study of various intellectual subjects, there is still a significant portion of their brain engaged in processes such as shifting muscle tension throughout the body to counteract gravity and keep the student seated in their chair. In addition to these processes, the eyes are tracking, the brain is focusing on the

teacher at the front of the room, and the muscles of the hand are coordinating to write notes on the information the brain has filtered out of the lesson and considered most important to retain.

Indeed, Carla Hannaford would most likely concur with Grafton's assessment of the intimate connection of mind and body. In *Smart Moves: Why Learning is Not All in Your Head*, Hannaford confirmed a similar sentiment in noting, "It is our body's senses that feed the brain environmental information with which to form an understanding of the world and from which to draw when creating new possibilities" (15). Hannaford took this a step further, however, by stressing that not only is the body used in collecting information, but that "it is our movements that not only express knowledge and facilitate greater cognitive function, they actually grow the brain as they increase in complexity" (15-16). Movement has been proven to be vital to brain plasticity and aids in the brain's ability to adapt.

Furthermore, Hannaford repeatedly emphasized the involvement of movement in thinking. The book is filled with statements such as, "No matter how abstract our thinking may appear to be, it can only be manifested through the use of the muscles in our bodies—speaking, writing, making music, computing, and so on" (17). The communication of thought cannot take place in the absence of movement. Steven Stolz, senior lecturer at La Trobe University in Australia, concurred that, "We cannot make contact with the world just by thinking about it, but through experiencing it with senses, acting in it, in ways that range from the most complex to the most primitive unreflective movements" (483). The human experience is naturally one that involves movement as a being that exists in the physical world. Moreover, this experience is a result of being capable of complex thought which "is actually a skill dependent upon the whole, integrated body/mind system … without movement of some kind, you don't get conscious thought. The final outcome of this process is meaning" (Hannaford 99).

In order to engage in more complex, higher order thinking, Mitchell Nathan argued in *Foundations of Embodied Learning: A Paradigm for Education* that metaphors become a useful tool through which people overlay basic concrete concepts. He wrote, "Metaphors simulate the meaning of abstract and complex concepts in terms of familiar and concrete (source) concepts. Thus, embodied actions and percept, and their metaphor extensions ground the meaning of many of the concepts used to reason about and describe the world" (Nathan 89). In other words, to perceive abstract concepts, people must create mental metaphors that relate them to something more concrete. For example, saying that someone is 'out of the woods' uses a metaphor to tie the idea of escaping danger to the physicality of a walking out of a hazardous forest. This concrete metaphor creates a more readily understood concept through which the abstract idea may be perceived. In this way, an understanding of how the body and mind work together to interact with the world creates the framework through which complex thought processing can occur.

In further expressing the importance of movement to learning, Hannaford added, "Movement awakens and activates many of our mental capacities … integrates and anchors new information and experience into our neural networks. And movement is vital to all the actions by which we embody and express our learning, our understanding and ourselves" (107). This is a statement which Nathan echoed in his own writing. He relayed the ICAP hypothesis, which "predicts that as students become more active, more 'hands on' (constructive), and more social (interactive) with materials, instruments, ideas, and collaborators—as they move from passive to active to constructive to interactive—they are more cognitively engaged, and so experience greater learning" (136). Indeed, each of these researchers made a compelling argument for the integral nature of movement to thinking and cognitive processes. It is through interaction with the physical world and the manipulation of objects within it that humans first begin to make

meaning, a process which creates the fundamental framework upon which they build all other knowledge. This physical interaction is a key element of the resulting cognition.

Embodied Learning

Previous research begins to beg the question: if we know movement is necessary for learning, how can teachers best use movement to bolster their classroom practices? Some theorists have suggested embodied learning as a solution. This type of instruction is rooted in the theory of embodied cognition, which "involves how the body and mind work in tandem to create the human experiences" (Sullivan). One of the leading researchers in this field, Arthur Glenberg, conducted a series of tests in which children were read a story while manipulating a toy relevant to the story being read. This experiment found that the children who were given a toy to manipulate reflected better comprehension of the story than those who only read the text. The key inference from these experiments was that physical engagement that is relevant to the task at hand results in better comprehension (Glenberg 9-12).

This work led to the development of Glenberg's *Moved by Reading,* an instructional practice for early reading instruction through which children engage in two phases: in phase one (the physical manipulation stage), the child reads a story while manipulating a toy or prop relevant to the reading to simulate the content of the story; in phase two (the imagined manipulation stage), the child imagines manipulating the same toys or props as before but now no physical contact with the objects occurs. The first phase of engaging in physical manipulation is, according to Glenberg, a key step to children later being able to make meaning from written text as they have physical memory from which to draw context (Glenberg 9-11).

Similar sentiments echoing the value of specific relevant movement to the subject being learned can be found in many texts on the value of embodied learning. Jaclynn Sullivan, Assistant Professor of Psychology at Mount Mercy University, conducted such research into

embodied cognition and instructional methods. In a reflection on the work of Englekamp and colleagues, Sullivan noted that "there is information encoded when performing a task that is not encoded in a verbal task. When testing the encoded information, those who have engaged in task performance have motor information available to them that enhances their recognition" (Sullivan). Fugate et al., expressed similarly that "the more initial information engages the sensory and motor cortices, the richer the simulation, and ultimately the better the recall and use of the material" (279). Sadoski further emphasized the multisensory nature of embodied learning as key to the learning experience in that it "is ultimately grounded in multisensory experience that includes vicarious, imaginative experience. Any nongenetic basis for understanding the world comes from actual experiences with the world" (337). These multisensory experiences are the key to the embodied learning philosophy. In opposition to traditional instructional models in which teachers lecture to seated students, this embodied model asserts that movement by the students is key to truly learning content. Arthur Glenberg explained this briefly, when he stated "…including a motor component increases the range of information encoded" (12). It is the physical engagement with the subject at hand that results in developing a deep level of understanding.

However, not only does embodied learning create multiple sensory inputs and routes for memory making, it also serves to provide much needed context for students. According to Stolz, in order to make sense of the world and the information being presented, students must first have context of themselves as a human operating within a body, and secondly how the experiences they encounter relate to themselves. He explained:

> Simply put, we cannot come to understand our embodiment if we do not engage in the
> world as a being-in-the-world. The phenomenal body is what we experience as a first

person subject of experience and as a result we can only exist in connection with a lived

body. We cannot make contact with the world just by thinking about it, but through

experiencing it with senses, acting in it, in ways that range from the most complex to the

most primitive unreflective movements. Hence the idea of embodied learning within the

educational sense involves coming to know ourselves and the world around us better

neither as an abstract object or as an instrument, but as a 'lived body' subject that senses

and does the sensing in a meaningful way. (Stoltz 483)

This idea of coming to know oneself described by Stolz is at the heart of embodied learning, for

it is the very nature of the human physicality that connects all people, regardless of personal

background, and through which people are able to establish a common understanding of the

world.

Yet, the reality is that we are not able to perfectly share our own understanding of the

world with others. Each person carries with them a set of unique life experiences that frame their

understanding of the world around them. Through body language, facial expressions, gestures,

and language, we attempt to communicate our individual experiences to others; however each

person must rely on their own personal context to create meaning from these modes of

communication.

One explanation for how people learn to understand others is based on the Mirror System

Hypothesis (MSH). Sullivan described that, "according to MSH, our goal in communication is to

gain insight into the internal world of others" and in order to accomplish this, "language must be

embodied in the sense that our understanding and use of words is acquired by awakening the

feelings of our own experiences" (Sullivan). Through MSH, humans utilize a mirror neuron

network which imitates or replicates the experience they perceive from the other person. In other

words, when people engage with others, neurons activate that create a mental image of what is being expressed, or what they perceive from the other person, based on their own personal context in order to understand what is being communicated. In this way, the collaborative nature of learning is demonstrated, for through these mirror neurons people are able to learn from witnessing or engaging with others around them.

While this mental imaging is integral to the efficient acquisition of knowledge, assessing how it takes place when the information being communicated goes beyond that which is concrete, or readily observable is more complex. Embodied scholars suggest that even abstract concepts are understood through action. Fugate described this as "metaphorical extension" which Lakoff studied extensively as "the use of metaphoric language to ground spatial and body-centric metaphors in concrete" (Fugate 279). Thus, even metaphors create "…a tangible 'grounding' to the body and to the physical world" (Fugate 279). In other words, people use metaphors to draw connections between abstract concepts and physical experiences in order to create a sense of meaning for the abstraction. This very closely mirrors the research by Mitchell J. Nathan described previously. By drawing connections to the physical world, people are able to create meaning for ideas and topics otherwise difficult to describe or observe.

While all of the concepts considered in the embodied learning model provide a useful understanding of how the body and movement are vital to learning, there are still very few practical applications to be found within the literature. Many sources considered the research and theorizing that has taken place thus far, but specific, actionable guidance is few and far between. Nathan addressed this lack of curriculum modeling because there is a lack of research in practical application: "as recognition grows of the importance of embodied approaches for learning and teaching, there is a real and continued need for rigorous, empirical research that will

provide evidence-based guidance for when and how to use these methods" (52). One suggested model that has gained traction recently is an offshoot of embodied learning which is called 4E Cognition.

4E Cognition

As previously described, the foundation of 4E Cognition lies in the idea that cognition consists of four characteristics: embodied, embedded, extended, and enacted. In an article published by the *Journal of Dance Education*, Lindsay Lindberg et al. defined 4E as "an umbrella term for a set of theoretical lenses that allow cognitivists to think about learning" (1). This theory of cognition combines research from the four aforementioned areas, including the research into embodied cognition described above, and examines how they overlap to create a more comprehensive view of how cognition occurs and can be observed.

While the value of embodied cognition has been established above, the other three elements are equally as critical to the argument for 4E Cognition. Matthew Henley, Associate Professor of Dance Education at Columbia University who holds an MFA in Dance and PhD in Educational Psychology, explained that "*Embedded* and *Extended Cognition* expand the spatial range to consider how mental phenomena are dependent upon (*Embedded Cognition*) or constituted by (*Extended Cognition*) bodily interaction with the environment" (130). Additionally, Henley cited Varela et al. and offered that "*Enactive Cognition* attends to the ways in which an agent's cognition is not only dependent upon or constituted by the environment, but the ways in which the environment is in turn modified by an agent's action" (130). Through these descriptions, Henley explained that much of cognition happens in the context of the body; it is embedded in a particular context, extended through the manipulation of tools (such as pen and paper), and enacted in that it is utilized for the purpose of action.

Employing this 4E lens, Laura H. Malinin, Associate Professor at Colorado State University, discussed the various ways these four characteristics are displayed in creativity research. According to Malinin, creativity is developed through a practice in which professionals develop a catalog of actions they utilize alongside improvisation to discover meaning through the creative process. In Malinin's assessment, creativity requires many cognitive processes, including "divergent and convergent thinking, conceptual combination (analogical and metaphorical thinking), mental imagery, and analogical reasoning" (2). While the word 'creativity' may suggest the arts for most, Malinin pointed out that creative thinking is an essential life skill "for solving wicked societal problems, such as overpopulation, poverty, and climate change" (9). This statement reminds readers that creativity is not only an action that results in a particular work of art created for aesthetic purposes but it is also required for breakthrough in any subject. Through creative problem solving new ideas are born, thus reflecting the importance of fostering creative thinking in all students for its ability to translate to any subject.

Malinin further reminded readers that creativity is a culmination of personal expertise that informs the creator's perception of their own abilities, and influences their actions; these actions result in changes in the perception of the next actions available and, in turn, the resulting creation further influences the creator's perception of their expertise. In this way, creativity "can be characterized as a dynamical system encompassing brain, body and world," which aligns with the 4E framework for how cognition occurs (Malinin 8). Malinin's argument provided strong support for the incorporation of creative practices into the classroom and relays a reality that dancers know all too well: the creative process *is* a form of cognition and results in new knowledge for the creator.

The Benefits of Dance to the
Cognitive Process

       The inherent value of movement and creativity to learning is integral to the way dance educators approach the learning process. Lindsay Lindberg et al. corroborated this sentiment in their article for the *Journal of Dance Education* with the statement that "dancers have long understood that our bodies inform what and how we learn" (2). Another scholar who has explored the benefits of dance to learning is Anne Green Gilbert, the founder of the Creative Dance Center and Kaleidoscope Dance Company in Seattle Washington and author of *Brain-Compatible Dance Education*, who provided an overview of how the brain develops in utero and into adulthood. Gilbert summed up the significance of this overview stating, "The knowledge that your first movements, even inside the womb, help build your brain underscore the fact that you actually move to learn. In other words, movement is essential to learning" (10). If movement is as essential to learning as Gilbert noted and embodied cognitive theorists would similarly assert, then the incorporation of dance into instructional practice becomes an incredibly useful tool. Lindberg et. al. confirmed this in their study, reflecting that the dancers "engaged actively with sense-making and autonomy through dance—making their thinking and sense-making physically visible, and therefore actionable, for their peers" (2). Through the intentional problem solving that is part of dancing, students engage in cognitive processes which are visible to those observing. In an article for the *Journal of Dance Education*, Denise Purvis presented similar findings, stating "within the 4E framework, movement is inseparable from intent, making the moving body an active participant in cognition" (150). The body is not only present during learning but is an active participant in the process and therefore must be taken into consideration in the development of educational practices.

Dance provides the benefit of not only involving movement, but additionally incorporating problem solving and critical thinking, emotional comprehension and development, creativity, and being used to connect with any variety of topics. If used properly, dance educators can provide students the opportunity to use their critical thinking skills coupled with their understanding of movement to engage the brain in a way that traditional learning does not. According to Gilbert's evaluation, "if students are given the opportunity to research and discuss, then create, perform, and share dances about past and current social issues, the curriculum goes beyond textbook material" and therefore "both the brain and the body gain and retain knowledge" (24).

Furthermore, the intrinsic ability to dance and relate to the emotional domain can create a deeper connection to classroom content than traditional instructional methods. Gilbert noted that "emotions, thoughts, and learning are linked. Experiences generate emotions, which generate thoughts and decisions, which generate both good and bad responses" (26). By leaning into the emotional aspect of dance, educators can engage a powerful learning tool that triggers intrinsic modes of expression and helps students be more accurate or more authentic to the sentiment they wishes to express.

In the chapter titled "The Embodiment of Language" from *The Oxford Handbook of 4E Cognition*, Mark Johnson contended, "the connection between emotion and meaning is that emotions are our most elementary way of taking the measure of our current or anticipated situation and responding to it," and that rather being in opposition to reason, "emotions and feelings are an integral part of how we conceptualize and reason" (636). Through its innate connection to emotion, dance serves as a format for reflecting the type of reasoning Johnson described. But simply moving about the room in an aesthetically pleasing manner does not

constitute the type of learning and reasoning described above. Rather, it is through the intentionality of the choreographic process that bodily knowledge and emotional reasoning are able to be assessed and intertwined in a meaningful fashion.

Cognition in the Choreographic
Process

In order to discuss the choreographic process, one must first consider the creative process. Robert and Michèle Root-Bernstein presented an analysis of the creative process in their book *Sparks of Genius*. Through the compilation of accounts from experts across a wide variety of fields, the Root-Bernstein's identified thirteen creative-thinking tools that industry leaders utilize regularly: observing, imaging, abstracting, recognizing patterns, forming patterns, analogizing, body thinking, empathizing, dimensional thinking, modeling, playing, transforming, and synthesizing (25). The process of thinking creatively begins first with feeling, because "the desire to understand must be whipped together with sensual and emotional feelings and blended with intellect to yield imaginative insight" (Root-Bernstein and Root-Bernstein 5-6). Indeed, the ability to follow one's emotions is a skill utilized by experts in all industries to help generate new ideas, even industries of science and mathematics, which give the impression of being emotionless. In discussing this connection of all fields to creative thought the Root-Bernsteins said, "Not only do scientists feel their way toward logical ideas, but creative thinking and expression in every discipline are born of intuition and emotion" (6). The thirteen creative thinking tools outlined by the Root-Bernsteins are then used by creators "to translate ideas generated by these subjective thinking tools into public languages to express their insights, which can give rise to new ideas in others' minds" (11). Thus, while creative thinkers across all fields are able to access and utilize these tools, they undergo the translation process to express their ideas according to the field at hand.

For choreographers, this process is very similar. Sandra Minton wrote in *Using Movement to Teach Academics* about how the movement creation process very closely follows along with these tools, though in a different order than that presented in *Sparks of Genius*. According to Minton, the creative dance process involves the following steps: observing and recognizing patterns, empathizing and body thinking, imaging, transforming and abstracting, playing and forming patterns, and modeling and synthesizing (Minton 69-84). Not only do these steps relate to the creative tools developed by the Root-Bernsteins, but they are also each reflective of cognitive practices of perceiving, recognizing, conceiving, and reasoning which are inherent in dance. Observing, Recognizing Patters, Empathizing, and Body Thinking can all be argued to involve perception and recognition as they require paying attention to external or internal stimuli and identifying a personal response (69-76). Imaging, Transforming, Abstracting, and Playing all constitute conceiving as they are the steps in the process of movement generation (77-82). Finally, Forming Patterns, Modeling, and Synthesizing all make up the reasoning element of dance making as they involve organization, reflection, and revision (80-83).

These cognitive processes of dance making were evident in research conducted by Miriam Giguere in *Research in Dance Education* (2011). In this study, Giguere explored the cognitive practices observed in children's dance making. Through this observation and analysis of children's expressed perceptions of their own creative processes, Giguere identified seven categories of meaning, four of which were stated to involve cognition. The first category of *Making Movement* involved "the fundamental ways children translated thought into meaning with their bodies" (20). The second category, *Organizing the Movement*, involved "ways in which the symbols the children created were manipulated and therefore meet the working definition of cognition" (20). The third category, *Knowing It's Good*, was synthesized as "how

each child selected movement or evaluated whether or not it worked in the context of the dance created," which thereby reflected "examples of children evaluating the effectiveness of their symbolic communication and therefore involve cognitive activity" (20-21). The final category, *The Group*, consisted of "students being critically aware or unaware of the thinking and creating methods of others in their group. This awareness is a form of mental comparison and evaluation, and therefore meets the criteria for cognitive activity" (21).

In the end, the researcher concluded that the choreographic practices of children did in fact involve cognition, and that specific cognitive practices could be identified within the children's dance making. In the final discussion, Giguere determined that the study reflected the "richness of the cognitive activity involved in dance creation for children," a reality which most dance scholars investigating cognitive practices in dance seem to agree with ("Dancing Thoughts" 24).

Arts Integration

With such an abundance of support for dance as a powerful cognitive tool that fosters creativity and critical thinking skills, many people may question why dance educators would want to integrate dance into the core content classroom. The reality is that some do not. Proponents of more traditional arts instruction point to the history of arts education as an independent subject and the amount of time and dedication necessary to fully develop technical skill in the arts. However, the goal of arts-integration is not simply to incorporate arts into the school curriculum for the sake of adding arts to formal education. As the Root-Bernsteins noted, "education based solely on separate disciplines and public languages leaves out huge chunks of the creative process" (13). The strength of art-integration teaching practices lies in the cross-disciplinary thinking that develops more robust creative thinkers, a skill which applies to any subject studied.

In addition to providing support for core content, the incorporation of dance and dance making into primary subjects can not only teach students about the subject at hand, but also nurture their understanding of movement and, as Lindberg et al. so aptly put it, "a deep understanding of the ways that humans—as embodied, social beings—can and do use our bodies to make sense of the world around us" (3). Moreover, the use of dance making in primary subjects can provide students the opportunity to develop their knowledge of choreographic craft in relation to their knowledge of other subjects, which can provide a safe entry point for students who might otherwise have shied away from the idea of choreographing their own piece. While dance and the choreographic craft is an art that deserves to be taught on its own, the incorporation of dance making in the primary subject curriculum can reveal to students the reality that dance making is not something that happens in isolation of the real world, but rather in response and in conversation with that world.

Why Integrate the Arts into the Classroom?

Some critics of integration suggest that the benefits to be found in arts instruction can be garnered through other methods that don't require specific arts training. Others argue that integration practices are shallow efforts at appeasing arts enthusiasts and do not go far enough in the instruction of the art itself. While both of those statements may be true in some cases, the research shows that thoughtful and intentional infusion of arts into the core curriculum does have a positive impact on students' performance in ways that are not achieved by separate art instruction.

In an article published by the *Journal of Dance Education* analyzing a dance-integrated curriculum, Megan LaMotte referred to the National Educational Longitudinal Study of 1988, which revealed a strong connection between arts participation and academic performance.

According to LaMotte's assessment, one of the benefits of arts integration is that it serves as a more powerful form of project-based learning. LaMotte remarked that "this means that arts integration is not just an educational trend. Arts integration having significant effects on academic achievement is a recurring finding in research" (24). Indeed, as LaMotte noted, many studies have shown that arts integration has positive impact on student achievement. LaMotte refered to the research of David E. Gullatt, relaying that, "when learning through arts integration, students experience knowledge in their minds and bodies and create representations of that knowledge that are more meaningful and will stay with the individual long term" (30).

Within her own research, LaMotte found that both test scores and student journal responses reflected that through the integration of dance into the classroom content, students not only demonstrated an understanding of both dance and the content area, but they were able to draw connections between the two, reflecting higher-order thinking. LaMotte summed up this research by stating, "this project seems to suggest what past research has shown as well; that dance is an art form that can increase student learning, student engagement, and academic achievement when incorporated into other content areas" (31).

Nick Rabkin and Robin Redmond, two researchers from the Center for Arts Policy at Columbia College Chicago, have found further support for the integration of arts into the classroom, and their work is often quoted in discussions of arts integration. Their studies have found many benefits to the integration of arts into other content areas, asserting that arts-integration programs are "associated with academic gains across the curriculum as reflected in standardized test scores, and they appear to have more powerful effects on the achievement of struggling students than more conventional arts education programs do" (Rabkin and Redmond 26). These two researchers assert that the benefit of incorporating arts into the classroom comes

in the ability of arts to connect to students' personal experiences and feelings. In creating their own reflective piece of art, students are afforded the opportunity to create for an audience that matters to them (i.e., their peers, families, and communities) rather than only turning in work to be graded by their teacher. This wider audience is more personally motivating to students and leads to a stronger sense of accomplishment. By using the arts to explore other subjects, Rabkin and Redmond suggested that students create work that "does not merely reproduce knowledge, but uses knowledge in authentic intellectual ways," and because of the authenticity students are permitted to bring to their projects, the resulting creation is "interesting and meaningful, promotes higher levels of engagement, raises students' intrinsic standards, and motivates students to invest the energy that learning requires of them" (29).

David E. Gullatt, another leading researcher in the arts-integration space, has provided much insight into the purpose of incorporating the arts into the classroom. In "Enhancing Student Learning through Arts Integration: Implications for the Profession," Gullatt provided an overview of research into the history of arts-integration practices. One reason he noted for utilizing the arts in the classroom is that it may "enable students to comprehend that there are many ways of problem solving" (Gullatt 22). Rather than only studying math through working math problems or history through reading texts, the incorporation of the arts shows students that no subject exists in isolation of the others, and alternate perspectives may provide another tool for arriving at a potential solution. In order to discover these alternate perspectives, Gullatt suggested that "teachers should move from the role of dispensers of knowledge into the role of facilitators of learning… The arts encourage students to apply their arts-related intelligence to perceive and organize new information into concepts that are used to construct meaning" (24). Integrating the arts into the classroom naturally moves the teacher into this facilitator role by

allowing the student to become the creator and project manager of the artistic work. While the teacher takes on more of a consultant role, the student is enabled to discover the knowledge for themselves and relay this knowledge in a personally authentic manner.

In a passionate argument for more robust incorporation of the arts into the classroom published by the *Journal for Learning through the Arts*, researcher Lisa LaJevic contended that "the arts have and will continue to be integrated into the classroom. In order to treat art with integrity, we need to rupture the space of static arts/teaching/learning (e.g., coloring in worksheets) to promote dynamic pathways of interdisciplinary teaching learning" (2). LaJevic argued that arts integration should not only be done for the purpose of supporting another academic subject, but to reveal to students that the arts are a way to make meaning that connects with their lives and the greater world. This suggestion was taken even further to assert that arts integration "recognizes the educational curriculum as a whole; it does not divide the curriculum into distinct parts (e.g., science, art, etc.), but celebrates the … overlapping qualities between subject and content" (2). It is this view of the curriculum as being overlapping and part of a whole that is a strength of incorporating the arts in learning, according to LaJevic.

The Choreographic Process in the Classroom

While the incorporation of all artistic pursuits provides value to educational programs, dance, and especially the choreographic process, provides particular benefits that may not be present in other art forms. For one, "dance educators aim to develop holistic movers that are skilled technicians, critical thinkers, innovative creators, successful collaborators, and respectful responders" (Gilbert 24). While it is understood that dance instructional practice develops skilled technicians, the other elements mentioned by Gilbert prove the unique value of dance as an integrated art.

Giguere's research revealed the benefits of dance to developing critical thinking skills when the teacher utilizes the following steps: "(1) encouraging divergent movement responses; (2) engaging transformation of ideas into creating a dance; (3) inviting the sharing of ideas; and (4) guiding students' elaboration" (10). By utilizing dance making, teachers have the opportunity to use each of these steps, thereby increasing students' opportunity to develop and display critical thinking skills. Giguere also noted that dance can provide students "cognitive autonomy and freedom by giving him or her the opportunity to construct and control a situation through symbolic manipulation" (24). Through the exploration of classroom content with dance making, students engage in a process of physically exploring situations and symbolic representations of this content. In this manner, students construct movement that reflects the result of their knowledge and critical thinking through the creation, selection, reflection, and revision of the movement.

In order to become innovative creators, students must engage in a process of observation and reflection which the Root-Bernsteins noted as the first step in the creative process. They proposed that "to think creatively is first to feel. The desire to understand must be whipped together with sensual and emotional feelings and blended with intellect to yield imaginative insight" (Root-Bernstein and Root-Bernstein 4-6). It is through feeling and the observation of emotional responses to a subject that students begin the choreographic process. Dance making may serve as a natural outlet for creative thinking due to the body's response to stimuli in the form of emotion, which provides an intuitive and subconscious indicator of a person's response to a subject or situation. By learning to recognize these emotions and reflect them through movement, students should be able to take advantage of the knowledge inherent in their bodies. Based on this fact, "feeling as thinking must, therefore, become part of the educational

curriculum. Students must learn how to pay attention to what they feel in their bones, to develop and use it" (6).

This body knowledge and creativity as a result of emotion can by amplified when students are provided the opportunity to create together. In her research into children's group chorographic processes, Giguere reflected that students' assignment of group roles and the conscious awareness of how these roles interacted within the group constituted a form of cognitive activity. In *Using Movement to Teach Academics*, Minton further noted that "a movement-based curriculum is interactive because concepts are transformed into actions and social, if dance making is done in groups" (6). In group choreographic practices, students engage in what Minton called cooperative learning. By aligning a group though the shared goal of creating a dance, "students are learning how to work with others in a way that does not lead to arguments or fights because cooperative learning means learning to compromise and appreciate differences in others" (6). If done successfully, group choreographic practices can serve as a form of scaffolding that provides the opportunity for the co-creation of knowledge through the group members' varied perspectives, resulting in an innovative work that would not have otherwise been possible without the contribution of each group member.

Finally, the choreographic process can help develop students into respectful responders through their roles as both performer and audience. By learning to respond kindly to their peers, students develop a sense of empathy for one another. Additionally, dance making provides further chance for personal development by allowing students "a chance to reflect on personal movement responses. The combined acts of being performer and then audience enables students to gain self-confidence and movement awareness" (Minton 50). By engaging in critical responses, students learn valuable communication skills and further their own confidence as

communicators, developing their ability to internalize their observations and describe those thoughts to their peers through thoughtful reflection.

Dance and English Language Arts

With the value of dance integration having been established, one can now consider the use of dance to support instruction in the English classroom. Though research into the connection between dance and English is not as abundant as connections to other core content areas, there has been increasingly more research conducted in this area over the past few years.

Studies in Teaching English through Movement

In a study published by the *Journal of Dance Education* in 2021, Alexandra Bradshaw-Yerby explored the practice of embodied writing. The process of embodied writing as described by Bradshaw-Yerby "considers improvised movement exploration as indispensable to the pre-verbal process wherein we stew in sensation, phrasing, and spatial relationship" (193). Through this qualitative study, participants engaged in four movement practices that accompanied writing assignments. Bradshaw-Yerby's analysis of the workshop noted that the resulting work of the participants "reads as more authentic and personally situated, rather than imitative" (195). Students in the workshop noted that the dance/movement activities provided new avenues for exploring their writing than they had previously experienced. Bradshaw-Yerby concluded that the use of embodied writing encouraged students to make more intuitive choices in their writing.

In a 2006 article, Miriam Giguere explored the experiences of children as they engaged in creative dance and poetry projects. The study followed the experiences of fifth graders from an elementary school in Pennsylvania as they created a group choreography piece set to poetry. Giguere concluded that, "there are, in these data, some common thinking strategies that occur

during both the creation of dances and the creation of poetry. Observing, empathizing, recognizing patterns, transformational thinking, and creative reverie were noted in both" (46).

Additionally, Giguere drew connections between dance making and procedural problem solving, suggesting that "one connection between dance and language arts may be the way in which strategies are applied rather than the strategies themselves. Perhaps the creative process itself is the transferable cognitive strategy that links artistic learning to traditional academic learning" (46). In this conclusion, Giguere suggested that creative thinking and critical thinking are reciprocal in that creative thinkers must think critically within their creative process, and critical thinkers must think creatively about how to solve problems. In drawing the connection between creative dance practices and poetry writing, Giguere advocated dance as a metacognitive tool which supports general problem-solving and reasoning skills.

The use of dance to support literacy goals was also analyzed in an article by Janet H. Adams from the *Journal of Dance Education*. This analysis focused on ways dance instruction at the elementary level supports students' literacy development. Adams described the use of written symbols to plan and develop dances. As Adams explained, "when my students finish this first plan, they not only can read and dance their own plans but are able to read and interpret the dances of their friends" (33). These plans not only helped younger students to organize their thinking, but also to practice the process of writing about movement. Adams also noted that older students engaged in research and dance documentaries where they studied, created, and filmed a dance about a particular topic. The students then created a text which was read as a voice-over and accompanied by music. Adams asserted that the autonomy which students experienced in these movement and writing practices improved student motivation. Each of the

lessons also portrayed opportunities for incorporating dance and writing at "appropriate social and developmental levels" as well as provided "evidence of student growth" (34).

In her 2016 Master's Thesis, Toni Duncan explored the use of creative dance to enhance middle and high school students' understanding of poetry. The study consisted of a series of classes in which Duncan first conducted a pre-test, then presented the course material as a lecture, followed by guiding the students through several creative movement activities intended to support understanding of the pre-test poetry concepts. The students were then asked to journal about their movement experiences, after which they were divided into groups to create a dance based on the creative movement activities. These dances were performed for an audience who also completed a survey. In the analysis of this study, Duncan reflected that the pre- and post-tests revealed some growth in understanding of the poetry content after students participated in creative movement processes. Duncan wrote that the results of the data "…indicate that the use of creative movement and dance enhance the poetry learning process for students to some extent" (44). The journal entries seemed to support knowledge growth between pre- and post-tests, and the audience responses mostly confirmed that the students' resulting choreography did reflect the energy of the poems while enhancing the audiences' understanding of the poems' meanings.

Strategies for Using Dance to Teach
English

While a wide variety of strategies exist for the integration of dance into core content classrooms, the use of creative movement exploration and choreographic processes appear most frequently in the research. A clear process for utilizing such strategies is outlined by Sandra Minton in *Using Movement to Teach Academics*. Minton wrote that the first step in considering how to use movement in the classroom is to know the eleven essential movement components:

direction, level, size, speed or timing, duration, rhythm, quality, shape, pathway, position, and starting and stopping movement (13). Each of these components make up the various ways dance can be discussed, analyzed, and applied to any type of academic content.

Once one understands these components, they may begin a process of transforming concepts into movement. There are two ways that this transformation process can occur: "direct or literal transformations and those that are indirect or abstract" (Minton 25). Literal transformation is the easier of the two processes because, as the name suggests, it requires the student to "simply move like a concept or shape your body like it" (25). In application to literature, this could involve copying gestures or movements described in a text or shaping one's body to mimic the shape of a particular object or character described. Abstraction, on the other hand, involves a more complex process in which students move like the essence of a concept. Minton suggested, "one way to think about the indirect nature of abstraction is to consider the feeling response you have about different concepts" (39). After considering the feeling response to that concept, Minton recommended students then think about images that come to mind based on this feeling response, which may connect to memories of personal experiences. This feeling response and the memories or images associated with it can be used to guide the transformation of the selected concept into movement. The eleven components of dance are an important tool to consider through the transformation process, whether literal, or an abstraction, or by utilizing a combination of the two.

There are also various levels of abstraction, and by changing the viewpoint at which the subject is considered, the resulting abstracted movement will change. By using critical thinking skills, one may think about all of the various ways the subject can be discussed or viewed and select the viewpoint most desired. The goal of abstraction is to "capture the basic feeling about

or essence of the concept or object in your actions" (Minton 40). This participation in abstraction can also be considered a form of synesthesia, through which movement is used "to represent something that is not moving or even alive," thus creating a sensory experience of a concept that may not normally be experienced through that sense (40).

The movement transformation process ends with nonverbal communication through the performance of the resulting choreography for an audience. Through this performance, a form of nonverbal communication takes place in which the audience interprets the movements observed and experiences their own emotional response to the performance. Minton warned that "the questions remain, however, whether your movements communicate in the desired way and whether the nonverbal message is literal or abstract" (39).

In order to practically incorporate these processes into the classroom, Minton advised that teachers begin with first discussing the academic subject at hand, then teaching movement based on the academic concept. This may be followed by allowing students to create their own movement based on the concept and connecting the movements together into a dance. One suggestion was to create a text-based dance in which the movement is based on the words of the text and follows the progression of the story or poem (Minton 51-52). Another option was to create a dance tableau in which dancers perform different movements at the same time in the same dance space, resulting in a picture that described the simultaneous relationship between various concepts. In terms of its use in the English classroom, a series of tableau dances could show different scenes within a story, connected through transitional movements (56-58).

A third suggestion involved the use of AB or ABA dances based on the story (as appropriate). An AB dance has a beginning "A" section, followed by a "B" section which is related to the "A" section but reflects a different tone. The ABA dance adds a third section which

returns to the original movement theme or themes of the first "A" section, but this time with a twist (60-63). Minton provided an example of using the ABA form to explore concepts from the book *Sweet Clara and the Freedom Quilt*, resulting in empathetic emotions in the students for the main character and added depth to students' understanding of the text. Similarly, teachers could also use the Rondo dance form in which "the A section is repeated throughout the dance separated by somewhat different B, C, and D sections. Each return to the A section includes either A in its entirety or just a portion of this section of the dance" (62). Finally, Minton suggested the theme and variations dance form in which a sequence of actions is developed as the theme, which is then adapted and varied throughout the dance. Minton noted the manipulation of various movement components can assist in varying the actions throughout the dance. This form could be useful for exploring a text in which a theme or event is viewed from multiple viewpoints.

Dance and Self-Confidence

In addition to providing a tool with which academic content can be taught, dance instruction also provides a unique opportunity to improve student confidence in their own abilities. Confidence has long been connected with movement; after all, the trope of the overly confident athlete exists for a reason. Achievement in the physical realm translates to an increased confidence in one's capacity to achieve in other realms. As a creative form that straddles the line between fine art and athletic pursuit, dance is uniquely positioned to improve student confidence through mastery of physical skill and provide an emotional outlet and tool for academic problem solving.

Confidence

Many studies connected the benefits of participation in dance to student self-confidence. Amber Salo conducted a study to investigate the mental and emotional benefits of dance for

students. The study consisted of a one-day workshop with participants ranging in age from fourteen to twenty-five. The sixty-three participants were divided into two groups based on age (fourteen to seventeen and eighteen plus). Five dance processionals were invited to lead the workshop. During the workshop, Salo observed and administered pre- and post-questionnaires, used an observational rubric for guided notetaking, and conducted group exit interviews. In Salo's assessment of the data, she noted a positive correlation between the dance workshop experience and improved dancer self-confidence as well as increases in other mental health benefits. Salo reported that, "before the workshop began, less than half of the participants reported having high self-confidence," while at the end of the workshop "75.9% of participants reported 'definitely' and 'yes' to feeling more positive and self-confident after a day of dancing" (47).

Research by Walter and Sat examined the use of circle dancing and folk dances in the development of emotional self-control and regulation as well as self-confidence in kindergarten aged children. The researchers noted the value of movement in emotional regulation, citing that "a child who gains experience in diverse types of movement will improve his motor abilities, and his feeling of control over his body will increase as well his self-confidence, and he will develop positive self-esteem" (Walter and Sat 83). The analysis of this research indicated that participation in circle dances correlated with an increase in many components of emotional intelligence including self-esteem and motivation, which could indicate a resulting increase in self-confidence (though self-confidence specifically was not assessed).

Studies as recent as that conducted by Jorge Luis Morejón have found a positive correlation between dance instruction and self-confidence. Morejón conducted research with the use of the Andrew W. Mellon Create Grants Program at the University of Miami with the

guidance of Carol Kaminsky to find ways to use glass sculptures exhibited in the Lowe Arts Museum as inspiration for creative movement. The researchers cotaught an improvisation class at the University of Miami and included pre- and post-class questionnaires. At the conclusion of the class, "all students reported having improved their sense of self-esteem and self-confidence through dance improvisation inspired by glass art" (Morejón 176).

Self-Efficacy

If dance has the capability to improve self-confidence, then there may also be a positive correlation between dance and self-efficacy. As described previously, self-efficacy is "a person's sense of being able to deal effectively with a particular task" (Hoy 476). Hoy explained that a strong sense of self-efficacy is associated with students' attribution of their success or failures. If students associate strong effort with success, they develop a strong sense of self-efficacy. Some also refer to this as having a growth mindset.

Professors Lynda M. Mainwaring and Donna H. Krasnow noted that self-efficacy is "one of the best predictors of successful achievement" (16). To assist students in improving self-efficacy, these professors suggested that teachers consider (1) outlining class procedures and goals, (2) examining factors that might influence dancers' progress, and (3) specifying the class content and format (Mainwaring and Krasnow 16). Additionally, they noted that students who are struggling with class content can benefit from "the encouragement and motivation needed for continued effort" (17).

Another key indicator of student self-efficacy is their level of engagement with goal setting. Salo's research considered students' goal setting and perception of achieving those goals. According to Salo, "data showed the goals were achieved by 85.2% of the 62.3% of participants that reported they had goals" (44). Of those who noted specific goals at the beginning of the study, some reported in the post-questionnaire that their expectations of the workshop were met.

While not specifically stated as self-efficacy, the ability to achieve one's goals is noted by Hoy as an influence on student self-efficacy.

In a *Phi Delta Kappan* article, Cynthia Compton described the effects of the Minds in Motion program on participating 4th grade students in metro Richmond, Virginia schools. Compton noted survey results reflected an increase in student self-efficacy after completing this single year dance program. According to the results, 55% of students reported that participating in the Minds in Motion dance program "helped them become better students" (Compton 184). Furthermore, student performance on standardized testing was slightly higher after participating in the program. As Compton noted, those students who engaged in the dance program "believe they have improved their ability to learn, to focus, and the be successful," clearly reflecting the positive effect participation in dance had on these students (185).

The benefits of dance to the development of student confidence and self-efficacy is clear. When students are provided the opportunity to engage in autonomous meaning making through dance, they become more secure in their own abilities. This development of independent thinkers is the ultimate goal of education, and dance is singularly suited for this task.

CHAPTER III

METHODOLOGY

This chapter describes the methods used to conduct research in an effort to answer the

essential questions presented in Chapter I:

Q1   What effect does the use of dance making methods have on student comprehension of short stories?

Q2   What effect does increasing the amount of dance creation time have on student comprehension of short stories?

Q3   What effect does the choreographic process have on student confidence in their own knowledge and critical reading abilities as it relates to the study of English literature?

The researcher devised a series of three workshops to walk participants through a process

of creating short dance phrases based on short stories. The methods utilized include pre-tests and

post-tests at each workshop. A total of ten high school students participated in the research. It

should be noted that due to the COVID-19 pandemic, some students were unable to participate in

every workshop.

Preparation for the Study

Before the project began, the researcher needed to obtain approval from the Institutional

Review Board. An application was submitted which outlined the project proposal, consent and

assent forms, and all pre-tests and post-tests. The Institutional Review Board approved the

project with no revisions needed, and the researcher was able to begin the study.

Text Selection

The first step in developing the workshops was to select the three short stories to be explored. These stories needed to be an appropriate level for high school students, yet preferably not something they had already studied in school. First, the researcher identified the English language arts textbooks utilized by the local school district and reviewed the short stories in each textbook to create a list of what the students might already be familiar with. Next, the researcher reviewed other popular textbooks to compile a list of other short stories studied at the high school level. After comparing the two lists for any crossover, the researcher eliminated any stories the participants might have already read in school. The researcher reviewed the remaining texts and from this list selected three stories for the purpose of this study: "The Birthmark" by Nathaniel Hawthorne, "The Masque of the Red Death" by Edgar Allen Poe, and "The Story of an Hour" by Kate Chopin.

The Participants and the
Classroom Setting

While the ideal setting would have been to conduct the research at a local high school, having no relationship with a local high school created a barrier to conducting research in this setting. The researcher instead chose to conduct research at the dance studio where she worked. This allowed for more control over the scheduling of the workshops and better recruitment of students as they already had a relationship with the researcher.

Workshop Participants

All participants were students at the studio and enrolled in high school at the time of the study. The participants had all danced for a minimum of five years and had previous experience with the choreographic process.

The Dance Studio Settings

The three workshops were held at the studio where the researcher works. This provided a familiar place for the participants, appropriate flooring and adequate space for dancing, and also allowed for flexibility in scheduling the workshops.

**Research Instruments Used in the
Study**

In consideration of how to best assess the three research questions, it was determined that pre-and-post-tests would be the most appropriate method for determining impact on student growth and for collecting feedback on participant self-reflection.

Pre-Test

Pre-tests were developed for each of the three workshops and corresponded with the specific short story to be studied. The pre-test for the first workshop included four multiple-choice comprehension questions about genre and literary elements in "The Birthmark," as well as three self-reflection questions about participant confidence and self-efficacy as readers. The pre-test for the second workshop included four multiple-choice comprehension questions about genre and literary elements in "The Masque of the Red Death," as well as three self-reflection questions about participant confidence and self-efficacy as readers and how the first workshop might have impacted their study habits. The pre-test for the third workshop included four multiple-choice comprehension questions about literary elements in "The Story of an Hour," as well as three self-reflection questions about participant confidence and self-efficacy as readers and how the second workshop might have impacted their study habits.

Post-test

The post-tests all included four questions to assess the same understanding of genre and literary elements from the pre-tests and incorporated more self-reflection questions on what impact participants perceived the workshop might have had on their understanding of the stories as well as whether they might choose to incorporate the dance making methods presented in the workshops into their personal study habits.

Workshop Design

After selecting the three stories to explore and creating pre-and post-tests for assessing participant comprehension and growth, the next step was to develop the workshop structure. The researcher chose to design only Workshop 1 to begin and then use observations from that workshop to make any necessary adjustments in Workshop 2. This process was also followed after Workshop 2 for the designing of Workshop 3. Each of the three workshops followed the choreographic process as described by Minton in *Using Movement to Teach Academics.*

Workshop 1

In designing Workshop 1, the researcher chose to stay as close to a true English literature class structure as possible with the addition of only one choreographic component at the end. The workshop began with the pre-test on "The Birthmark," which was followed by a group discussion of literary genre, identification of main characters and what they represent, and key plot points. This initial discussion represented the observation phase as described by Minton. The discussion then turned towards literary elements including themes, symbols, motifs, foreshadowing, and irony, which represented the pattern recognition phase.

Participants were then given the opportunity to independently create a literal translation of the story into movement through the portrayal of major plot points. Participants were next encouraged to consider their emotional response to the story, especially towards the use of

literary elements, and how their emotional response could be incorporated into their choreography, thereby adding in an element of abstraction to their work. Dancers were given around twenty minutes total to create their choreography. The workshop concluded with the post-test. In order to remove barriers to participation, the researcher chose not to have students share their choreography; this allowed the researcher to encourage students to create whatever choreography felt most natural without fear of what an audience might think.

Workshop 2

After reflecting upon the results of the first workshop and considering how to address the second essential research question, the researcher decided to adapt the order of the workshop to incorporate choreographic methods earlier into the workshop schedule and designate more time for movement research and design. This workshop began with a pre-test on "The Masque of the Red Death," followed by an observation phase of discussing genre and identifying main characters and what they represent. Participants were then asked to create a body shape or movement phrase to represent the two main characters, Prospero and the Masked Figure.

After this first movement opportunity, participants then discussed major plot points and identified key verbs and characterizations. This was followed by a time of literal transformation of plot points into movement. Participants then came back together to discuss literary elements in the story including themes, symbols, motifs, foreshadowing, and irony and reflect on their emotional response to these elements when reading the story. They were then asked to create movement based on their emotional response to the story.

Finally, the participants were asked to combine their shape or movement phrases representing the main characters with their literal translations and abstractions to create a single dance encompassing their thoughts about the story. The workshop ended with the post-test.

Workshop 3

After reflecting on the structure of the second workshop with the repeated process of discussion/reflection followed by development of choreography, the researcher decided to test the inverse structure, with a movement first approach. The workshop began with the pre-test, which was then followed by having participants create a movement phrase representing their emotional response to reading "The Story of an Hour." Next was a group discussion of the genre and setting of the story and an identification of the main characters and what they represent. Participants were then asked to create a movement phrase to represent Mrs. Mallard which could be literal or an abstraction.

This was then followed by a discussion of key plot points and notable verbs and characterizations, after which participants turned these observations into a literal movement translation. They then discussed the literary elements including themes, symbols, motifs, foreshadowing, and irony and considered their emotional response to these specific elements. This was followed by a process of creating an abstraction of these elements and emotions. Finally, participants combined all of the movement they had created into a single dance reflecting their perspective of "The Story of an Hour." The workshop concluded with a post-test. This third workshop provided the most time in movement development and choreographic process out of the three and the least amount of time spent on discussion.

Data Analysis

Both qualitative and quantitative analysis methods were utilized in reviewing research data from the pre-and post-tests.

Quantitative Analysis

The first four questions of each pre-test and post-test were multiple choice questions to assess students' comprehension of the story and relevant literary elements. The change in scores

from pre-test to post-test were analyzed quantitatively to assess how student grades could have been impacted by the workshop process. Additionally, the percentage of correct answers across each of the three workshops was assessed to determine if any student growth across the course of the workshops could be identified.

Table 3.1

Workshop 1 Pre-test and Post-test Data Comparison (8 Participants)

Question	Number of Students Who Answered Correctly on the Pre-test	Number of Students Who Answered Partially Correct on the Pre-test	Number of Students Who Answered Correctly on the Post-test	Number of Students Who Answered Partially Correct on the Post-test
Question 1	5	N/A	8	N/A
Question 2	4	4	4	4
Question 3	7	N/A	8	N/A
Question 4	3	N/A	2	2

Table 3.2

Workshop 2 Pre-test and Post-test Data Comparison (10 Participants)

Question	Number of Students Who Answered Correctly on the Pre-test	Number of Students Who Answered Partially Correct on the Pre-test	Number of Students Who Answered Correctly on the Post-test	Number of Students Who Answered Partially Correct on the Post-test
Question 1	9	N/A	10	N/A
Question 2	7	N/A	9	N/A
Question 3	8	N/A	8	N/A
Question 4	4	6	4	6

Table 3.3

Workshop 3 Pre-test and Post-test Data Comparison (8 Participants)

Question	Number of Students Who Answered Correctly on the Pre-test	Number of Students Who Answered Partially Correct on the Pre-test	Number of Students Who Answered Correctly on the Post-test	Number of Students Who Answered Partially Correct on the Post-test
Question 1	3	N/A	8	N/A
Question 2	5	N/A	6	N/A
Question 3	6	N/A	6	N/A
Question 4	5	N/A	7	N/A
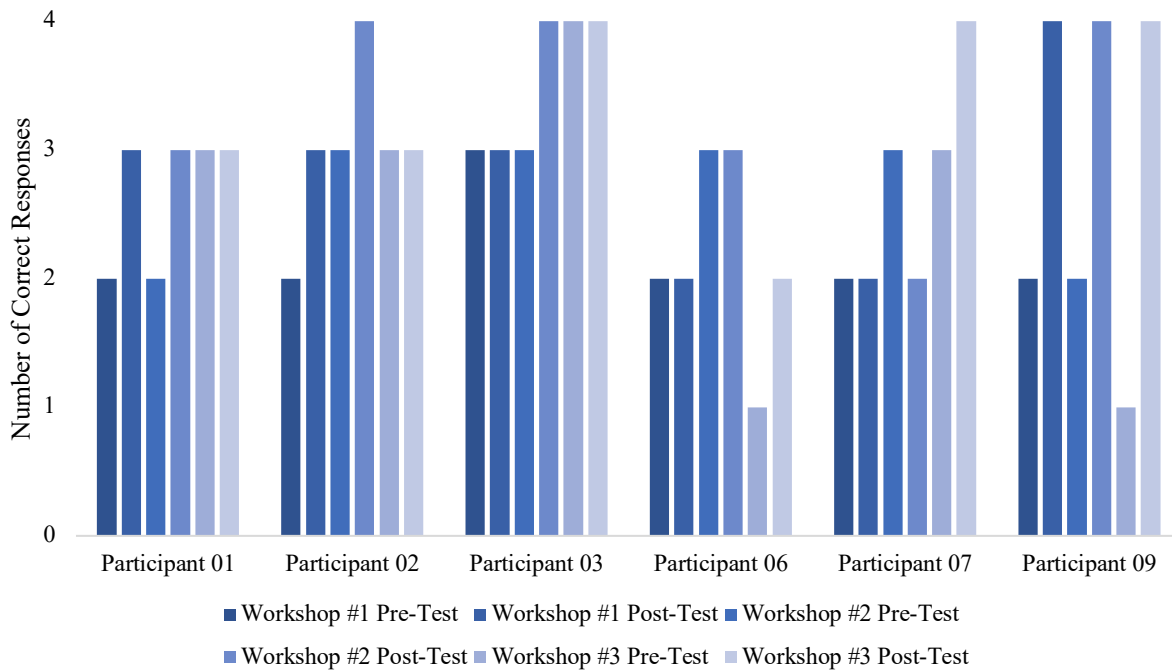
Figure 3.1

Comparison of Student Scores Who Participated in All Three Workshops

Qualitative Analysis

The second set of questions from each pre-and post-test were analyzed qualitatively as they predominately consisted of participant reflection and self-assessment of confidence and self-efficacy. The subjective nature of these responses made them more suitable for a qualitative analysis method. These questions were reviewed to identify common themes within each workshop as well as across the course of all three when considered collectively.

Summary

This chapter outlined the research methods utilized as well as how data from the research were analyzed. Furthermore, it established the structure of each workshop and how the researcher adapted the workshops throughout the process to consider how the incorporation of more dancing and choreographic methods might impact student performance as compared to a more traditional discussion-based English class.

CHAPTER IV

DISCUSSION

The purpose of this study was to identify what effect dance making methods has on

student comprehension of short stories, how increasing the amount of time students spend on

choreographic processes impacts their understanding of the stories, and what effect these

processes have on student confidence and self-efficacy. This chapter will review the data

collected from the three workshops and identify any patterns present. A review of quantitative

data is presented first, followed by a review of qualitative data.

Pre-Test and Post-Test Data
Analysis from Questions 1
through 4

The first four questions in each pre-test and post-test were multiple choice and were

reviewed quantitatively. Some questions required multiple answers to be selected, thereby

resulting in a possibility for partially correct answers. It should also be noted that some students

selected multiple answers to questions that required only one response, which also could result in

a partially correct answer.

Workshop 1

Eight participants attended the first workshop. The first and third questions asked

students to identify character type and correct definition for motif. Based on the data from this

workshop, the percentage of correct scores on questions one and three increased. The second and

fourth questions required students to identify major themes and to read a quote in order to

identify the literary element present. Question two's correct response rate remained the same,

with four responding correctly and four receiving a partially correct score. Question four saw a decrease in correct responses, going from three correct answers to two correct and two partially correct. These two questions required higher order thinking than questions one and three, therefore assessing the students' abilities to read and analyze a text.

Workshop 2

Workshop 2 had ten participants and saw increases in correct response rate on questions one, two, and four. Question three had two fewer correct answers than the pre-test. This question required students to read excerpt sentences and identify which sentence provided an example of imagery. As the highest order thinking question on the test, it is not surprising that students might miss this question; however, the change from all ten students answering correctly on the pre-test to only eight answering correctly on the post-test was unexpected. This second workshop did have greater increase in correct responses from pre- to post-test than the first workshop, which could potentially indicate that the increased time spent on choreography was beneficial. The choreography was also interspersed along with group discussion rather than saved for the end. This embodiment of the text earlier in the process might have also played a part in the impact on student understanding.

Workshop 3

Eight participants attended the third workshop, which had the greatest increase in correct responses out of all three. The first question improved from three correct responses on the pre-test to eight correct responses on the post-test. The second question improved from five correct responses to six. The third question maintained the same correct response rate of six, and the fourth question increased from five correct responses to six. It is important to note that this workshop involved the most movement creation time and also began with movement first.

Comparison of All Three Workshops

There was a slight increase in post-test correct response rate from Workshop 1 to Workshop 2, with an even stronger increase in Workshop 3. Two questions out of all three workshops showed a decrease in correct responses from pre-test to post-test; all others reflected an increase or remained consistent. Out of the six students who participated in all three workshops, all were able to consistently maintain or increase the number of correct responses from pre-test to post-test in each workshop except for one participant who had one less correct answer on the post-test from Workshop 2 than the pre-test for that same workshop. The most common trend was for student correct responses to increase from pre-test to post-test in each workshop, with the post-tests for Workshops 2 and 3 having the greatest number of students with 100% correct responses.

The first workshop began with a thorough group discussion and ended with individual choreography. Workshop 2 increased choreography time and interspersed these segments throughout the discussion. Workshop 3 included the most choreography time and was the only one to begin with movement. Based on these factors, it could be possible to draw a connection between the amount of time spent on creating choreography and the increase in correct responses from pre-test to post-test.

Pre-test and Post-test Data
Analysis from Questions 5+

The second set of questions in each pre- and post-test asked participants to assess their confidence in their abilities as readers before the workshops and after participating in the workshop activities. A review of these questions follows.

Workshop 1

In the pre-test for Workshop 1, participants were asked questions about their confidence in their own ability to comprehend short stories. Responses ranged from extremely confident to extremely unconfident.
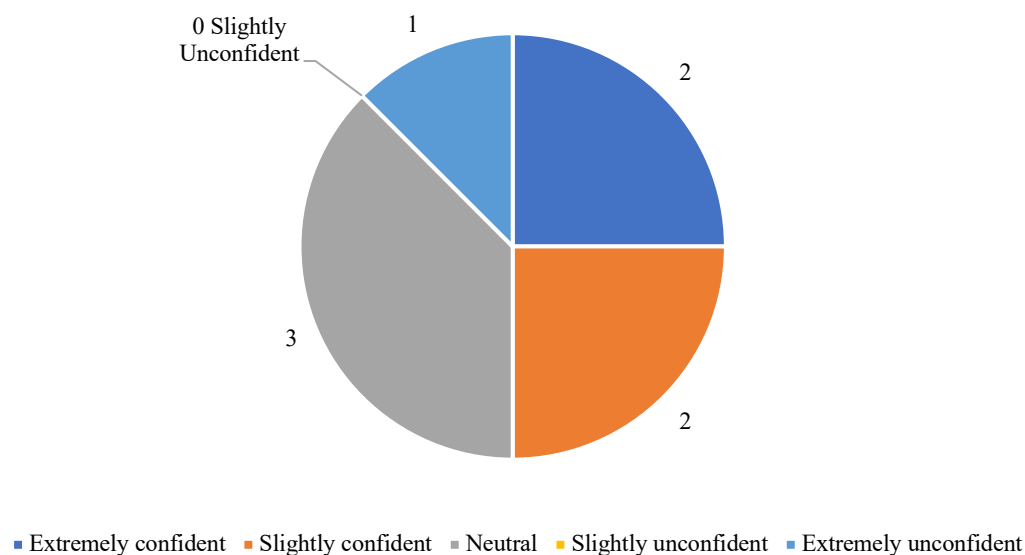
Figure 4.1

Responses to Workshop 1 Pre-test Question 5: How would you describe your level of confidence in your ability to read short stories for comprehension?

When asked to provide reasoning for their responses, one participant noted that they were slightly confident rather than extremely confident because they tend to overthink their analysis. Two participants reflected that they were neutral because they struggle to find deeper meaning and identify themes when reading. When asked what type of study methods they employ, no students marked that they utilize creative methods. The most common response was annotation followed by looking up unfamiliar terms in a dictionary. Two participants marked "other" and shared that they preferred to listen to audio formats of the stories they read.

In the post-test, participants were asked a series of follow-up questions to reflect on how the workshop impacted their level of confidence. The number of "extremely confident" responses increased from two to three, and the number of "slightly confident" increased from two to five. No participants indicated that they were neutral or unconfident. When asked to provide reasoning for these responses, no trends could be identified, but there were some notable reflections on how the workshop impacted their ratings. One student reflected that the workshop "helped to see the high points of the story and what was truly important through repetition of certain ideas like the grasp on Georgiana." Another student wrote that "going through the story and picking out specific words to help define the tones in the story and feelings of the characters was very helpful." A third responded, "I think working and moving to tell the story made me think about it and focus more while helping me understand it better."

Question seven asked participants if they felt the dance processes impacted their confidence as readers. Two participants indicated that the dance process made them much more confident, and three noted that the dance process made them slightly more confident. Two noted a neutral response to the dance process and one selected that they were slightly less confident than before. In the follow-up question asking students to provide reasoning for these selections, no trends could be identified, but the student who indicated a decrease in confidence reflected that they spent too much time thinking about the specific movements they were creating rather than on how to reflect the character development from the story.

Question nine asked students if they felt the workshop helped them gain a deeper understanding of literature and why. Seven participants responded favorably, sharing that the workshop did help them gain a deeper understanding. One student shared that the dance making process did not assist their understanding, as they forgot much of the plot once they went to

choreograph. One student stated, "it helped me look at what I was feeling rather than just what I was seeing." Another responded that "when applying emotions/characteristics to the literature it made it more comprehendible. It made the words physical, helpful in the way watching a play benefits comprehension." Two participants stated that applying their love for dance to literature made the process more enjoyable than just reading alone.

The final question asked if participants thought they would consider utilizing creative dance processes to study literature in the future. Three students responded that they would utilize creative dance processes in their future studies. Three indicated that they might in certain situations or if they had enough time. One responded that they would not employ creative dance processes and one did not respond to the question.

Out of the eight participants for this workshop, most responded in a manner that indicates that they found some value in applying creative dance methods to the study of literature and that they might incorporate this process into their future studies in some manner.

Workshop 2

The format for the second set of questions in the pre-test for Workshop 2 was very similar to that of Workshop 1. Participants were again asked to identify their level of confidence in their ability to read short stories for comprehension and those responses are reflected in the following chart.
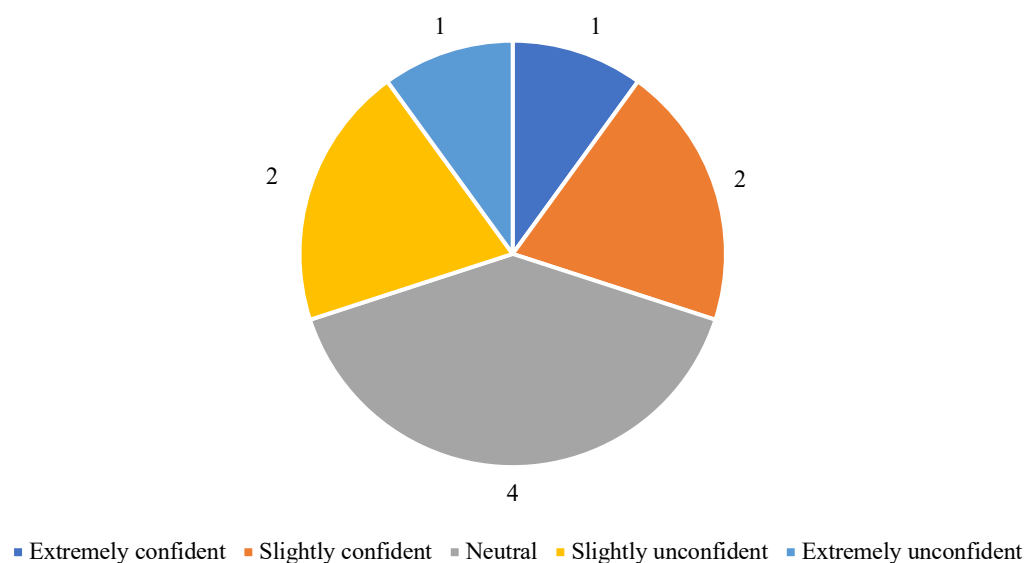
Figure 4.2

Responses to Workshop 2 Pre-test Question 5: How would you describe your level of confidence in your ability to read short stories for comprehension?

In reflecting on the reasoning for these assessments, no trends could be identified; however, one student stated that the vocabulary in this story was challenging. The last question asked students if participating in the first workshop changed how they might study short stories on their own. Two students responded that the first workshop did change how they might study short stories but gave no further answer. Three students shared that they did not use any new methods for studying this story. One student reflected that after the first workshop they thought more about how the characters felt in the story as they were reading for this second workshop.

The second half of the post-test questions for this workshop were the same as those from Workshop 1. Question five again asked students to describe their level of confidence in their ability to read short stories. As with the first workshop, the level of confidence reflected in the responses increased from the pre-test, with three students selecting "extremely confident," six selecting "slightly confident," and one selecting "neutral." When asked to reflect on the

reasoning for these answers, three students responded that the workshop process helped to make the story more visual. One student said it helped "because we related [the story] to something other than words." A second student wrote, "I think putting the plot literally and physically into movement made it comprehendible." The third stated "I think from these past two 'classes' I've become better at understanding and interpreting text in that I see movement and visuals in the text."

Question seven asked participants if they feel the dance processes impacted their confidence as readers. Eight participants responded that they felt slightly more confident and two responded that they were neutral. In reflecting on these responses, three students wrote that the creative dance process helped them gain a better understanding of the events of the story or better understand what challenging words meant. One student response said, "the dance helped me to recognize the overarching themes and motifs incorporated within the story. It also helped me to understand the plotline and progression of events better." Another student wrote that "being able to portray certain words through movement was helpful when I had trouble understanding them before."

Question nine asked participants if they thought the workshop helped them gain a deeper understanding of literature. Eight participants responded that the workshop did help them gain a deeper understanding and two did not answer. In reflecting on the reasoning for this response, one participant noted that the workshop "made me really think through what happened to be able to come up with movements." A second wrote that "it helped me analyze all the hidden meanings/symbols that I didn't notice before," while another responded, "through this process, overall themes were able to be shown and felt rather than only written."

The final question asked participants if they thought they would ever consider using creative dance processes in their future literature studies. Seven students responded that they would, one said no, and two did not respond. One student reasoned that they would "because not only does it allow you to mimic the story and understand some of the symbols more easily, you also get to move and make your own realizations." Another student agreed that they would also consider using creative dance processes in the future "because it helps me connect the pieces more."

As with the first workshop, the responses to this second workshop reflected an increase in confidence from pre- to post-test. Additionally, the majority of participants assessed that the creative dance processes did have an impact on their understanding and that they would consider using these processes in their future studies. It is worth noting again that this workshop involved more time spent on the choreographic process and also interspersed this process throughout the literature analysis rather than keeping the two separated. It is possible that this incorporation of dance making into the analysis of literature had an impact on the increased confidence rate in the participants.

Workshop 3

As with the first two workshops, the second set of pre-test questions for Workshop 3 assessed student confidence in their reading comprehension. Students were once again asked to assess their level of confidence in their ability to read short stories. Responses to this question are reflected in the following chart.
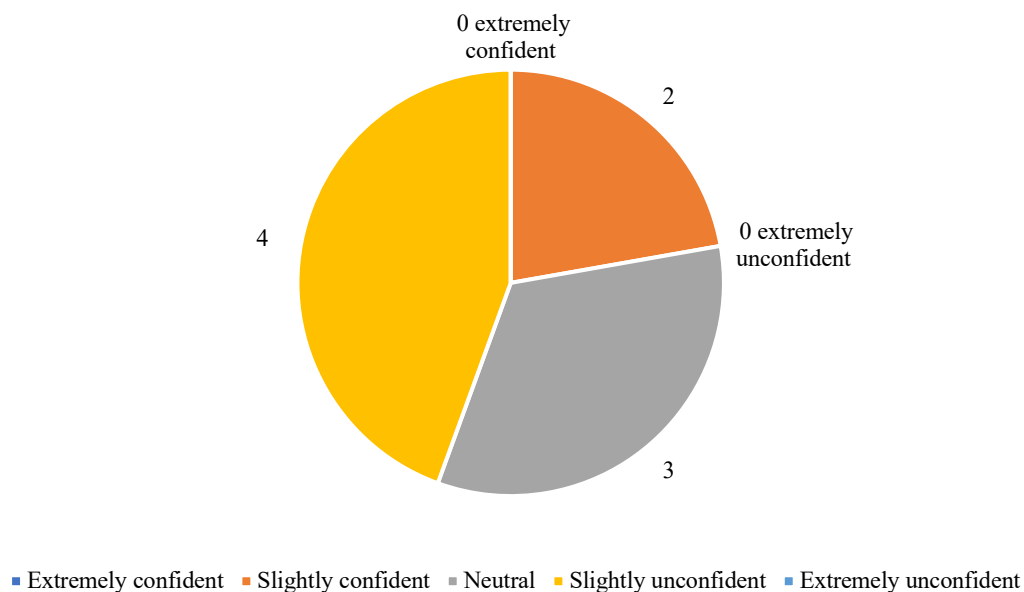
Figure 4.3

Responses to Workshop 2 Pre-test Question 5: How would you describe your level of confidence in your ability to read short stories for comprehension?

As is evidenced by the chart above, the rate of confidence declined from the last workshop to the third workshop. Students fell somewhere between slightly confident and slightly unconfident, with no strong feelings either direction. Several students chose not to answer question six with reasoning for their assessment, but out of those who did few trends could be identified. Two participants noted reading too quickly or struggling to focus while reading. One student described getting lost when reading the story.

The last question of the pre-test asked students if participating in the second workshop changed how they might study literature on their own. Four students said that the workshop did help or influence how they think about literature. One student said no and reasoned that they needed to hear other people's thoughts about a story in order to understand it. Three students chose not to answer this last question.

The second half of the post-test for this workshop was the longest of the three, asking questions to assess both student confidence as a result of the dance making process as well as their confidence in their abilities as readers. Question five asked participants to rank their level of confidence in their ability to read short stories for comprehension after participating in the creative dance process. Three students selected that they were "extremely confident," three selected "slightly confident," and two selected "neutral." In their follow-up to this question, all students who left a comment expressed that the workshop did help their level of confidence in some way. One student wrote, "I feel like moving through this one not only helped me understand it, but like the story more. I caught on to literary techniques and how the characters really felt without being bored of the story." A second student shared that they "think when you insert yourself into the story by making it physical, it's easier to understand the emotions and actions that occur."

Question seven asked students to rank how they felt the dance process specifically impacted their confidence as a reader. Four students assessed that they were "much more confident than before," while the other four students assessed that they were "slightly more confident than before." The most common trend across responses to the follow-up question revealed that students felt that breaking down the story to then recreate it through the creative process helped them gain further understanding than they had previously.

Responses to question nine were very similar; this question asked participants if this workshop helped them gain a deeper understanding of literature. All responses indicated that the workshop did improve participant perception of their understanding of literature. Multiple students mentioned that the creative dance process helped to interpret the emotion within the story as well as explore their own emotional response to the story. Another student explained that

the workshop helped to clarify the actions within the story, while others shared that the process of breaking down the text to be reflected as choreography was helpful in improving their understanding.

The final question asked participants if they would consider utilizing creative dance processes to study literature in the future. Seven participants replied that they thought some form of creative dance process would be helpful to incorporate into their current literature classes. One responded that it would not be helpful but explained that they were homeschooled, which they thought would make the process less useful. Some participants reflected that students who have not studied dance might find the creative dance process intimidating. One student suggested having the creative dance process be a homework assignment that students could then come into class to discuss; that way, the performance aspect might be removed to create more comfort for those students who have not trained in dance. Some participants mentioned that the creative dance process might help students find a deeper connection to the literature than they had previously, which could result in a deeper appreciation for literature.

Comparison of Workshops 1 and 2

The number of participants attending the workshops increased from Workshop 1 to Workshop 2, growing from eight participants to ten. By the end of each workshop, the degree of confidence in reading abilities also increased. Workshop 1 ended with three extremely confident and five slightly confident, while Workshop 2 ended with three extremely confident, six slightly confident, and one neutral.

Question seven of the post-tests, which asked if the dance process impacted participant confidence, was less decisive. Two Workshop 1 participants recorded that the dance process made them much more confident, while three indicated it made them slightly more confident, two were neutral, and one selected that they were slightly less confident. At the end of Workshop

2, no students indicated that they were much more confident, but eight selected that they were slightly more confident and two were neutral. These data indicate that the number of participants who felt that the dance process impacted their confidence positively in some way grew from five in Workshop 1 to eight in Workshop 2. It is also notable that no students in Workshop 2 indicated that the creative dance process negatively impacted their confidence.

Responses to questions nine and ten also saw improvement from Workshop 1 to Workshop 2. Question nine asked if the workshop helped students to gain a deeper understanding of literature. In Workshop 1, seven of the eight students responded that the workshop did help them gain a deeper understanding, whereas in Workshop 2, eight of the ten students reflected that the workshop improved their understanding. Question ten asked if participants would consider using creative dance processes in their future literature studies. Workshop 1 had three students respond yes, three respond that they might in certain situations, one responded that they would not, and one did not respond. Workshop 2 had improvement in these numbers, with seven participants reflecting that they would consider using dance processes in their studies, one responding no, and the other two did not respond to this question. It should be noted that the same student who responded no in the first workshop also responded no at the end of the second workshop.

Comparison of Workshops 2 and 3

Workshop 3 had a decline in participation from Workshop 2, with only eight students able to attend. Responses to question five asking about student confidence in their ability to read short stories after participating in the workshop stayed relatively level. Workshop 2 had three extremely confident, six slightly confident, and one neutral while Workshop 3 also had three extremely confident, three slightly confident, and two neutral.

Question seven saw significant improvement from Workshop 2 to Workshop 3. This question asked about whether the dance process impacted participant confidence as a reader. Responses from Workshop 2 included eight slightly more confident and two neutral, while responses from Workshop 3 included four much more confident and four slightly more confident.

Following this, participants were asked if they felt the workshop helped them gain a deeper understanding of literature. Eight participants in Workshop 2 responded that they did feel they gained a deeper understanding of literature, and two chose not to respond. Similarly, all eight participants in Workshop 3 reflected that they did feel they gained a deeper understanding of literature. When asked if they would consider incorporating creative dance processes into their future literature studies, Workshop 3 once again had a higher positive response rate. Seven participants in Workshop 2 responded that they would, one said no, and two did not respond, while all eight participants in Workshop 3 responded that they would consider incorporating dance making in some manner into their future studies.

Comparison of All Three Workshops

Of the students who participated in all three workshops, all responded to question five of the post-tests that they were either much more confident or slightly more confident after participating in each workshop. Responses to question seven across this group were also relatively positive, with most reflecting that the creative dance process did make them slightly or much more confident in each workshop. Only one participant who attended all three indicated a neutral impact to their confidence, and none indicated that their confidence was negatively impacted by the dance making process.

For questions nine and ten, all six participants who attended all three workshops responded that they believe the workshops helped them gain a deeper understanding of literature

and that they would consider utilizing creative dance processes to study literature in the future.

While most used strong language in their reflections that they would utilize these methods in

future studies, one participant did show progressive growth in the strength of language used from

Workshop 1 to Workshop 3 on question ten. In Workshops 1 and 2, this participant indicated that

they would consider utilizing dance making methods if they had adequate time in which to do so.

On the Workshop 3 post-test, this participant responded with much stronger language, writing,

"Yes, I would especially to just get out my own thought of the piece and also to kind of highlight

the tone used throughout the story."

The trend for the second section of questions within this group of participants who

attended all three workshops reflected a positive response to all questions asking about

improvement in confidence and the impact dance making had on both confidence and

understanding. None of these participants responded that the workshop negatively impacted their

confidence or understanding in any way.

**Wholistic Summary of Data
Collected**

When viewed in their entirety, the pre- and post-test data from the workshops reflected a

general trend of positive change. Within Workshop 1, the number of correct answers increased

across 75% of questions and student confidence scores improved as well, with five of the eight

students present reporting an increase in confidence level after participating in the workshop

creative dance process. Workshop 2 data also reflected an increase in correct scores across 75%

of questions and similar increases in student confidence demonstrated by the improvement in

confidence scores for eight out of ten students with the remaining two staying at extremely

confident and slightly confident, respectively. Data from Workshop 3 showed the strongest

improvement in test scores, with 75% of questions increasing in the number of correct responses

and the other question maintaining the same number of correct responses. This workshop also had the greatest increase in confidence scores, with all eight participants reporting an increase in confidence after participating in the workshop creative dance process.

Most students responded positively to the creative dance process, with only one student displaying hesitancy to participate. This student relayed a preference for traditional study methods and stated they preferred to not add what they called "extra steps" in the form of creative dance to their study habits. This student did not participate in the final workshop. All other students recorded a positive association with the workshop process and indicated on their last post-test that they would consider incorporating creative dance practices into their future studies.

CHAPTER V

CONCLUSION

As discussed throughout this thesis, the main goal of the researcher was to investigate the

impact of dance making and creative dance processes on student understanding of literature, as

well as the impact on student confidence and self-efficacy as readers. This final chapter relays

the methods used to assess the data and considers the success in evaluating the essential

questions used to develop the study. This chapter also outlines limitations of the study and

potential opportunities for further research.

Research Methodology

The following essential questions were used to guide the research for this thesis:

Q1   What effect does the use of dance making methods have on student comprehension of short stories?

Q2   What effect does increasing the amount of dance creation time have on student comprehension of short stories?

Q3   What effect does the choreographic process have on student confidence in their own knowledge and critical reading abilities as it relates to the study of English literature?

To answer these questions, a series of three workshops was developed, each with a focus

on a different short story and that incorporated creative dance processes alongside traditional

literature study methods. Tests were administered at each workshop to assess student degree of

comprehension and level of confidence in personal reading abilities before and after the dance

making process. Each pre- and post-test included a set of text-based questions analyzing themes,

characters, and literary elements within the respective story and a second set of questions asking

participants to reflect on their degree of confidence as readers and whether they felt the dance making process influenced their understanding of the literature studied. All pre- and post-tests were delivered on paper within the workshop timeframe. Due to complications of the COVID-19 pandemic, not all participants were able to attend every workshop. Thus, data were analyzed within each individual workshop as well as comparing the three as applicable.

Interpretation of Findings

The interpretation of collected data was organized by the researcher in terms of application to each of the three essential questions. That interpretation is as follows.

Essential Question One

The first essential question asked what effect the use of dance making methods might have on student comprehension of short stories. The first four questions of each pre- and post-test were designed to address this question. As described in the previous chapter, the majority of these questions reflected an increase or steady rate in correct responses from pre- to post-test. Only two questions out of the twelve questions across the three workshops had a decline in correct answers.

While not decisively conclusive, it is important to note that the final workshop which incorporated the most time spent on the creative dance process had the most significant increase in correct responses. Based on these results, it might be suggested that dance making can have a positive impact on student understanding of short stories. This specifically appears to apply to students' ability to identify themes and character, which reflected the most improvement. Students' ability to identify literary elements within a quotation appeared to be unaffected by the dance making process.

Essential Question Two

The second essential question considered the effects increasing the amount of time spent participating in the dance making process had on student comprehension of short stories. This question must be assessed by considering the development from Workshop 1 through Workshop 3. As has already been discussed, each successive workshop displayed a higher number of correct responses than the one before, with the final workshop eliciting the highest number of correct responses out of the three. Considering that each workshop also incorporated more dancing than the one proceeding it, there may be a potential connection present between the amount of time spent on creative dance and student comprehension.

Following this same pattern, responses to question nine on the post-tests indicate that student perception of their own comprehension of the stories increased after each workshop. Outlying quotations have been given previously, but themes across all three workshops indicated that most students felt the dance making process had a positive impact on their understanding of each story. The post-test for Workshop 3 was the only one of the three to have all attending students answer question nine in indication that the dance making process positively impacted their understanding. Workshop 1 had one participant share that they did not feel the dance making process helped them gain any understanding of the story, and seven participants expressed that they did feel it helped. Workshop 2 had eight participants express that they felt the workshop improved their understanding (including the one student who had shared that the last workshop did not help) and two who chose not to respond to this question. In the final workshop, all eight attending students shared that they felt the workshop improved their understanding. With this, it may be possible to suggest that the creative dance process improves student perception of comprehension of short stories.

Essential Question Three

The final essential question asked what effect the choreographic process has on student confidence in their own knowledge and critical reading abilities as it relates to the study of English literature. The second set of questions in the pre- and post-tests were created to address this topic, especially questions five, six, seven, and eight. Based on the data, most students experienced an increase in confidence, or their degree of confidence remained the same from pre- to post-test in each workshop. Only one student replied that they were slightly less confident after the first workshop. This student reported feeling extremely confident in the second workshop and did not attend the third.

Furthermore, it should be noted that the third workshop also had the lowest ranking of student confidence on the pre-test, with no students extremely confident and four slightly unconfident, the highest number of unconfident students across the three workshops. By the end of this workshop, all participants reflected being at least neutral if not some degree of confident, with three assessing they were "extremely confident." Considering this workshop began with the lowest ranking of confidence in student ability, was the only one of the three to begin with choreography, and involved the most time in the creative dance process, a connection may potentially be seen between the dance making process and student confidence.

When taken as a whole, the data seem to indicate that dance making can positively impact student confidence. Though not all students seemed to enjoy the dance making process, most did agree that walking through the process improved their confidence in their performance to some degree. Almost all students commented that they would consider using dance making processes in their future studies and that they did consider these processes to be appropriate to incorporate into their future literature studies.

Limitations of Study

One of the most significant limitations of the study was the small number of participants. With only ten total participants and not all able to attend every workshop, the sample size was extremely small, making it challenging to assess trends, as any single student's results could heavily sway the data. In addition, all participants in the study were current dance students at the time the workshops were held, which meant they had some level of familiarity with dance and dance making that would not be present in a general school population. This familiarity may have contributed to bias in participant evaluation of how the dance making process impacted their understanding and confidence, as these students are already inclined to enjoy dance making.

Other limitations include the research instruments being designed by the researcher as well as the workshops being conducted by the researcher as teacher. The research instruments were not tested for reliability or validity. While the researcher does hold a Bachelor of Arts in English, the researcher was not an English teacher at the time of research development, so the questions assessing student comprehension may contain bias.

Connections to Previous Research
and Relevance to Field

This study sought to integrate creative dance processes into the core content classroom in an effort to further similar research as that conducted by Duncan, Giguere, Gilbert, Gullatt, LaJevic, LaMotte, Minton, Rabkin and Redmond, and the Root-Bernsteins. Duncan and Giguere both conducted research into the use of dance making in the study of poetry. Giguere also investigated the cognitive processes present in children's dance making. As was described in the literature review, Giguere found that dance can help students develop critical thinking skills when the teacher utilizes the steps of "(1) encouraging divergent movement responses; (2) engaging transformation of ideas into creating a dance; (3) inviting the sharing of ideas; and (4)

guiding students' elaboration" (10). The processes of this study involved three of the four steps described here. Additionally, Giguere's note of the benefit engaging in symbolic manipulation has on the development of student cognitive autonomy is also applicable to the processes within this study; students in this study were challenged to create and manipulate their own individual movement symbols to represent different characters within the stories.

Gilbert has conducted much research into the ability of dance to impact cognitive processes, specifically the wholistic ability of dance to reflect how "emotions, thoughts and learning are linked" (26). Through this study's workshops, participants reflected their emotional response to stories with movement which was then connected to choreographic representations of other aspects of the stories, thereby creating a physical representation of participants' emotions, thoughts, and learning in a single work of choreography.

Gullat described the arts teacher as a "facilitator of learning" who helps guide students to discovering their own knowledge (24). The movement workshops embodied this concept by walking students through a process of translating their own understanding of stories into movement, therefore requiring students to delve further into their personal understanding of the stories in order to create a new artistic work reflecting this understanding.

LaJevic, LaMotte, and Rabkin and Redmond all researched the benefits of arts integration into the general education classroom and concluded that arts-integration does in fact have positive effects on student performance. Minton and the Root-Bernsteins considered how the creative processes such as dance making can positively impact student creative thinking. Minton's outlining of the creative dance process, which relates closely to the Root-Bernsteins' creative tools, was used directly in the development of the workshop processes; the researcher guided the students through the process of observing patterns of literary elements within the

stories, empathizing with the characters through body thinking, and abstracting their emotional response to the stories (Minton 69-80). The positive results of this study could be considered support for the use of Minton's outline in integrating dance into the core content classroom.

Additionally, the results of previous dance research into student confidence and self-efficacy can be seen in this study as well. Salo, Morejón, and Compton all found positive connections between dance and impact on student confidence and self-efficacy. Similarly, this study reflected a positive impact on student evaluation of confidence and self-efficacy through the course of the three workshops.

Recommendations for Further Research

While further research is needed for all aspects of this study due to the limitations present, the data presented does seem to indicate a potential positive connection between dance making and student comprehension as well as self-confidence in literature analysis abilities. The researcher recommends additional studies be conducted utilizing larger populations of students. Other potential avenues for research include conducting similar research in the general education setting, rather than at a private dance studio, and identifying participants who have no previous experience with dance making.

In conclusion, the researcher believes the incorporation of dance making into the study of literature provides opportunities for students to develop rich connections to stories that might not otherwise be possible with traditional literature study methods alone. This process provides opportunity for students to strengthen their autonomy and sense of self-efficacy through the incorporation of emotions, thoughts, and artistic preferences into a single work. By representing short stories through movement, students are given the opportunity to embody content that might otherwise remain only an abstract idea. This more concrete representation, in addition to the

emotional elements that are possible to incorporate, makes dance uniquely suited for integration into the literature classroom. By continuing to develop further studies into the connection between dance and the English language arts classroom, researchers can provide further evidence to support not only the integration of dance into the core content classroom, but also the inherent value of dance to students in any setting. Whether through integration into other classrooms or through dance-specific classes, research continues to show the benefits and value of dance to student development for K-12 schools. This study provided support for the incorporation of dance making into the study of short stories and the benefits to student comprehension and self-confidence in analysis abilities. The integration of dance making into the literature classroom as described in this study may provide a useful tool for further developing the core academic curriculum to better support student development of comprehension and self-confidence.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD (IRB)
DOCUMENTS

UNIVERSITY OF
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Institutional Review Board

Date: 10/27/2021

Principal Investigator: Ashley Carney

Committee Action: **IRB EXEMPT DETERMINATION – New Protocol**

Action Date: 10/27/2021

Protocol Number: 2110030642

Protocol Title: Arts-Integrated Teaching of English Literature: Using Dance Making Methods
                                     to Enhance High School Student Comprehension of Short Stories and Self-
                                     Confidence in Critical Reading Skills

Expiration Date:

The University of Northern Colorado Institutional Review Board has reviewed your protocol and
determined your project to be exempt under 45 CFR 46.104(d)(701) for research involving

Category 1 (2018): RESEARCH CONDUCTED IN EDUCATIONAL SETTINGS. Research, conducted
in established or commonly accepted educational settings, that specifically involves normal educational
practices that are not likely to adversely impact students' opportunity to learn required educational content
or the assessment of educators who provide instruction. This includes most research on regular and
special education instructional strategies, and research on the effectiveness of or the comparison among
instructional techniques, curricula, or classroom management methods.

You may begin conducting your research as outlined in your protocol. Your study does not require further
review from the IRB, unless changes need to be made to your approved protocol.

**As the Principal Investigator (PI), you are still responsible for contacting the UNC IRB office if and
when:**

• You wish to deviate from the described protocol and would like to formally submit a modification
  request. Prior IRB approval must be obtained before any changes can be implemented (except to
  eliminate an immediate hazard to research participants).

• You make changes to the research personnel working on this study (add or drop research staff on this
  protocol).

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

- At the end of the study or before you leave The University of Northern Colorado and are no longer a student or employee, to request your protocol be closed. *You cannot continue to reference UNC on any documents (including the informed consent form) or conduct the study under the auspices of UNC if you are no longer a student/employee of this university.

- You have received or have been made aware of any complaints, problems, or adverse events that are related or possibly related to participation in the research.

If you have any questions, please contact the Research Compliance Manager, Nicole Morse, at 970-351-1910 or via e-mail at nicole.morse@unco.edu. Additional information concerning the requirements for the protection of human subjects may be found at the Office of Human Research Protection website - http://hhs.gov/ohrp/ and https://www.unco.edu/research/research-integrity-and-compliance/institutional-review-board/.

Sincerely,

Nicole Morse
Research Compliance Manager

University of Northern Colorado: FWA00000784

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO
STUDENTS 18 YEARS OR OLDER

Project Title: Arts-Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension of Short Stories and Self-Confidence in Critical Reading Skills
Researcher: Ashley Carney
Phone Number: E-mail:

Purpose and Description: The primary purpose of this study is to research the use of dance making to support student comprehension of short stories and the impact this has on their self-confidence in their knowledge of literary elements and critical reading skills. We will conduct the research over the course of three workshops, each of which will focus on a different short story: Workshop 1 – "The Birthmark" by Nathaniel Hawthorne; Workshop 2 – "The Masque of the Red Death" by Edgar Allen Poe; Workshop 3 – "The Story of an Hour" by Kate Chopin. Each workshop will follow the same format and will take 1.5 to 2 hours each.

The workshop format will be as follows:

You will be asked to read each story before attending the corresponding workshop. Copies will be provided to you and your child after your consent form has been returned. Students will also be given a copy of the story at the start of the workshop.

Each workshop will begin with a pre-test of 4 questions to assess your understanding of the story along with questions about your confidence in your own ability to read short stories critically. Tests will not be graded, but rather will serve as a base line for your current level of understanding and confidence. Then the researcher will talk the participants through an analysis of the story along with a review of the various literary elements present within the story. Next, the researcher will walk you through a process to transfer your thoughts and observations of the text into movement, culminating in each participant creating their own dance based on the text. Each workshop will end with a post-test to again assess your critical reading of the text and follow up questions about your confidence in your reading abilities after participating in the workshop. The pre-test and posttest will each take approximately 5 to 10 minutes to complete.

I foresee no risks to you beyond those that are normally encountered when participating in dance class. Tests will not be graded, nor will they be returned to the participants. They will serve only as a reference point for the researcher to assess if the workshop activities had any impact on participant understanding of the stories and their own confidence in their abilities. The study is not intended to assess student individual performance in current academic or dance classes, but rather to consider the ability of dance making practices to improve student critical reading skills and confidence in personal abilities.

Page 1 of 2 _____
(Parent's initials here)

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We will videotape workshops to back up the notes taken by the researcher. Be assured that we intend to keep the contents of these tapes private. Quotes from participant comments and summaries of conversations held in the workshop and may be included in the report, but no identifying information will be included. Participant names will be replaced by numerical identifiers. To further help maintain confidentiality, computer files of participants' tests will be created and participant names will be replaced by numerical identifiers. These files will be saved on a password protected computer and the hard copies destroyed. The names of subjects will not appear in any professional report of this research. Your signed assent form will be taken to The University of Northern Colorado in the summer of 2022 and stored in Crabbe Hall, room 308, the office of Christy O'Connell-Black, Dance Education MA co-coordinator. All data associated with the project will be destroyed after three years.

Please feel free to phone me if you have any questions or concerns about this research and please retain one copy of this letter for your records.

Thank you for assisting me with my research.

Sincerely,

Ashley Carney

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Nicole Morse, Office of Research, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

_____   _____
Subject's Signature   Date

_____   _____
Researcher's Signature   Date

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PARENTS CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Arts-Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension of Short Stories and Self-Confidence in Critical Reading Skills
Researcher: Ashley Carney
Phone Number: E-mail:

I am researching the use of dance making to support student comprehension of short stories and the impact this has on their self-confidence in their knowledge of literary elements and critical reading skills. If you grant permission <u>and if your child indicates to us a willingness to participate</u> we will conduct the research over the course of three workshops, each of which will focus on a different short story: Workshop 1 – "The Birthmark" by Nathaniel Hawthorne; Workshop 2 – "The Masque of the Red Death" by Edgar Allen Poe; Workshop 3 – "The Story of an Hour" by Kate Chopin. Each workshop will follow the same format and will take 1.5 to 2 hours each.

The workshop format will be as follows:

Students will be asked to read each story before attending the corresponding workshop. Copies will be provided to you and your child after your consent form has been returned. Students will also be given a copy of the story at the start of the workshop.

Each workshop will begin with a pre-test of 4 questions to assess the students' knowledge of literary elements and critical reading skills along with questions about students' confidence in their own ability to read short stories critically. Tests will not be graded, but rather will serve as a base line for students' current level of understanding and confidence. Then the researcher will talk the participants through an analysis of the story along with a review of the various literary elements present within the story. Next, the researcher will walk the students through a process to transfer their thoughts and observations of the text into movement, culminating in each student creating their own dance based on the text. Each workshop will end with a post-test to again assess students' critical reading skills and follow up questions about student confidence in their reading abilities after participating in the workshop. The pre-test and posttest will each take approximately 5 to 10 minutes to complete.

I foresee no risks to subjects beyond those that are normally encountered when participating in dance class. Tests will not be graded, nor will they be returned to the students. They will serve only as a reference point for the researcher to assess if the workshop activities had any impact on student understanding of the stories and their own confidence in their abilities. The study is not intended to assess student individual performance in current academic or dance classes, but rather to consider the ability of dance making practices to improve students' critical reading skills and confidence in personal abilities.

Page 1 of 2 _____
(Parent's initials here)

We will videotape workshops to back up the notes taken by the researcher. Be assured that we intend to keep the contents of these tapes private. Quotes from student comments and summaries of conversations held in the workshop and may be included in the report, but no identifying information will be included. Student names will be replaced by numerical identifiers. To further help maintain confidentiality, computer files of participants' tests will be created and participant names will be replaced by numerical identifiers. These files will be saved on a password protected computer and the hard copies destroyed. The names of subjects will not appear in any professional report of this research. Your signed consent form along with your child's signed assent form will be taken to The University of Northern Colorado in the summer of 2022 and stored in Crabbe Hall, room 308, the office of Christy O'Connell-Black, Dance Education MA co-coordinator. All data associated with the project will be destroyed after three years.

Please feel free to phone me if you have any questions or concerns about this research and please retain one copy of this letter for your records.

Thank you for assisting me with my research.

Sincerely,

Ashley Carney

Participation is voluntary. Your child may decide not to participate in this study and if your child begins participation they may still decide to stop and withdraw at any time. Your child's decision will be respected and will not result in loss of benefits to which they are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to allow your child to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Nicole Morse, Office of Research, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

_____ _____
Child's Full Name (please print)   Child's Birth Date (month/day/year)

_____ _____
Parent/Guardian's Signature   Date

_____ _____
Researcher's Signature   Date

ASSENT FORM FOR SUBJECTS 17 YEARS OLD AND YOUNGER
UNIVERSITY OF NORTHERN COLORADO

Hi!

My name is Ashley Carney and I'm a teacher at
and a Master of Arts in Dance Education student at the University of Northern Colorado.
I am conducting research into the ability to use dance making to teach short stories and
how this might impact student confidence in their own reading skills. I am asking high
school students at   to participate in this study.

The research will consist of a series of three workshops lasting 1.5 to 2 hours each.
These workshops will be held at   and are open to
any high school student at the studio. Before each workshop, you will be asked to read
a short story:
1. Workshop 1 – "The Birthmark" by Nathaniel Hawthorne
2. Workshop 2 – "The Masque of the Red Death" by Edgar Allen Poe
3. Workshop 3 – "The Story of an Hour" by Kate Chopin

At the beginning of each workshop, you will be asked to take a pre-test that involves 4
critical reading questions about the story as well as a few questions about your
confidence in your reading skills. I will then walk participants through a process of
analyzing the story and transferring your thoughts and observations about the story into
movement. By the end of each workshop, you will have created your own dance
reflecting your perspective of the story. Each workshop will end with a post-test of 4
critical reading questions and follow up questions on your confidence in your knowledge
of literary elements and reading skills after participating in the workshop. The pre-test
and posttest will each take approximately 5 to 10 minutes to complete.

There will be no right or wrong answers on any of the questions on the pre- or post-tests
and no grades will be provided. You will be assigned a code which will be used in place
of your name, and no identifying information will be included in any part of the report.
We will video the workshops only to support the researchers' notes, but no part of the
videos will be shared or displayed. Quotes or summaries of conversations from the
workshop may be included in the report, but your name will not be associated with any
quotes or summaries.

Page 1 of 2 _____
(Participant's initials here)

Participating in these workshops should not bring you any physical harm beyond that which could happen in the course of your regular dance classes and will not impact your participation at   . Your parents have already provided their consent for your participation, but you are not required to do so. If you agree to participate, you may withdraw from the research at any time. If you have any questions about the study, please feel free to talk to me.

If you would like to participate in my research including the three workshops, please sign your name below and write today's date next to it. Thank you!

_____

Student   Date

_____

Researcher   Date

10/4/21

To Whom It May Concern:

Ashley Carney has my approval to conduct her research at
. I support her attempt to research the effect of using dance making practices in the instruction of short stories. I have reviewed her proposal entitled Arts Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension of Short Stories and Self-Confidence in Critical Reading Skills. I agree that the study may help demonstrate the need for arts-integration (specifically dance integration) into education.

Sincerely,

Dana Perkins

Owner

APPENDIX B

RESEARCH INSTRUMENTS

Title of Project : Arts-Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension of Short Stories and Self-Confidence in Critical Reading Skills

Workshop #1 Pre-Test for High School Students– "The Birthmark" by Nathaniel Hawthorne

Participant Code:_____

Date:_____

Please respond to the following questions based on your reading of "The Birthmark" to the best of your ability.

1. In "The Birthmark," which of the following roles does Aylmer play?

    a. Magician

    b. Everyman

    c. Caregiver

    d. Antihero

2. Which themes are present in the story? Circle all that apply:

    a. Love of Science vs Romantic Love

    b. The foolishness of striving for perfection

    c. The celebration of nature

    d. The quest for immortality

3. What does the term 'motif' mean?

    a. Figurative language that evokes the senses

    b. A word or object that represents something beyond its literal meaning

    c. A repeated work, topic, or phrase throughout a work

    d. The implied meaning of a word

4. Which literary element is represented in the following quote?

"Aylmer now remembered his dream. He had fancied himself with his servant Aminadab, attempting an operation for the removal of the birthmark; but that deeper went the knife, the deeper sank the hand, until at length its tiny grasp appeared to have caught hold of Georgiana's heart; whence, however, her husband was inexorably resolved to cut or wrench it away."

    a. Foreshadowing

    b. Personification

    c. Simile

    d. Hyperbole

The following section will serve as a reflection of your thoughts/opinions based on your reading of "The Birthmark." If you feel the need to clarify or add additional information, please feel free to write comments next to the responses or on the back of the sheet. Thank you!

5. How would you describe your level of confidence in your ability to read short stories for comprehension?

    a. Extremely confident

    b. Slightly Confident

    c. Neutral

    d. Slightly Unconfident

    e. Extremely Unconfident

6. Please provide your reasoning for your answer to the previous question:

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7. What are your usual methods of studying short stories on your own? (Select all that apply)

    f. Annotating the text

    g. Consulting a dictionary to define specific words

    h. Reading a summary of the text online utilizing resources such as SparkNotes

    i. Researching the author and context of the story

    j. Creative analysis methods (incorporating music, dance, drama, visual art, etc.)

    k. Other:_____

Title of Project : Arts-Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension of Short Stories and Self-Confidence in Critical Reading Skills
Workshop #1 Post-Test for High School Students– "The Birthmark" by Nathaniel Hawthorne

Participant Code:_____

Date:_____

Please respond to the following questions based on your reading of "The Birthmark" to the best

of your ability.

1. In "The Birthmark," which of the following roles does Aylmer play?

    a. Everyman

    b. Antihero

    c. Caregiver

    d. Magician

2. Which themes are present in the story? Circle all that apply:

    a. The foolishness of striving for perfection

    b. The celebration of nature

    c. Love of Science vs Romantic Love

    d. The quest for immortality

3. What does the term 'motif' mean?

    a. The implied meaning of a word

    b. A repeated work, topic, or phrase throughout a work

    c. A word or object that represents something beyond its literal meaning

    d. Figurative language that evokes the senses

4. Tell what literary element is presented in the following passage and explain how it is used.

> "The crimson hand expressed the ineludible gripe in which mortality clutches the highest and purest of earthly mould, degrading them into kindred with the lowest, and even with the very brutes, like whom their visible frames return to dust."

    a. Foreshadowing

    b. Personification

    c. Simile

    d. Hyperbole

The following section will serve as a reflection of your thoughts/opinions after completing the workshop. If you feel the need to clarify or add additional information, please feel free to write comments next to the responses or on the back of the sheet. Thank you!

5. How would you describe your level of confidence in your ability to read short stories for comprehension after participating in the creative dance process?

    a. Extremely confident

    b. Slightly Confident

    c. Neutral

    d. Slightly Unconfident

    e. Extremely Unconfident

6. Please provide your reasoning for your answer to the previous question:

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7. Do you feel that the dance processes impacted your confidence as a reader?

     f.   Yes, I feel much more confident now than before

     g. Yes, I feel slightly more confident now than before

     h. Neutral, my confidence level is unchanged

     i.   No, I feel slightly less confident now than before

     j.   No, I feel much less confident now than before

8. Would you like to provide any further comment on the previous question?

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9. Do you think this workshop helped you gain a deeper understanding of literature? Why or why not?

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10. Do you think you would consider utilizing creative dance processes to study literature in

the future? Why or why not?

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_____

Title of Project : Arts-Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension of Short Stories and Self-Confidence in Critical Reading Skills
Workshop #2 Pre-Test for High School Students– "The Masque of the Red Death" by Edgar Allen Poe

Participant Code:_____

Date:_____

Please respond to the following questions based on your reading of "The Masque of the Red Death" to the best of your ability.

1. "The Masque of the Red Death" is often seen as an allegory. What does the word allegory mean?

    a. A song, transmitted orally, which tells a story

    b. A story which reflects the author's life

    c. A story that imitates of the style of a particular writer or genre with deliberate exaggeration for comic effect

    d. A story that can be interpreted to reveal a hidden meaning, typically a moral or political one

2. What does the character of Prospero represent in the story?

    a. Bravery in the face of danger

    b. The obliviousness and folly of wealth

    c. The joys of youth

    d. The benevolence of royalty

3. Which of the following quotes from the text is an example of imagery?

    a. "Its pendulum swung to and fro with a dull, heavy, monotonous clang; and when the minute-hand made the circuit of the face, and the hour was to be stricken,

there came from the brazen lungs of the clock a sound which was clear and loud

and deep and exceedingly musical."

b. "They resolved to leave means neither of ingress or egress to the sudden impulses

of despair or of frenzy from within. The abbey was amply provisioned. With such

precautions the courtiers might bid defiance to contagion. The outside world

could take care of itself."

c. "Who dares insult us with this blasphemous mockery? Seize him and unmask

him… that we may know whom we have to hang, at sunrise, from the

battlements!"

d. "But from a certain nameless awe with which the mad assumptions of the

mummer had inspired the whole party, there were found none who put forth hand

to seize him; so that, unimpeded, he passed within a yard of the prince's person."

4. "The Masque of the Red Death" incorporates which elements of Gothic style? (select all

that apply)

a. Macabre imagery

b. Atmosphere of mystery and suspense

c. A curse

d. A theme of confinement/isolation

The following section will serve as a reflection of your thoughts/opinions based on your reading of "The Masque of the Red Death." If you feel the need to clarify or add additional information, please feel free to write comments next to the responses or on the back of the sheet. Thank you!

5. How would you describe your level of confidence in your ability to read short stories for comprehension?

    a. Extremely confident

    b. Slightly Confident

    c. Neutral

    d. Slightly Unconfident

    e. Extremely Unconfident

6. Please provide your reasoning for your answer to the previous question:

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    _____

    _____

    _____

7. Did participating in the first workshop change how you might study short stories on your own?

    _____

    _____

    _____

    _____

Title of Project : Arts-Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension of Short Stories and Self-Confidence in Critical Reading Skills
Workshop #2 Post-Test for High School Students – "The Masque of the Red Death" by Edgar Allen Poe

Participant Code:_____

Date:_____

Please respond to the following questions based on your reading of "The Masque of the Red Death" to the best of your ability.

1. "The Masque of the Red Death" is often seen as an allegory. What does the word allegory mean?

   a. A story which reflects the author's life

   b. A story that can be interpreted to reveal a hidden meaning, typically a moral or political one

   c. A story that imitates of the style of a particular writer or genre with deliberate exaggeration for comic effect

   d. A song, transmitted orally, which tells a story

2. What does the character of Prospero represent in the story?

   a. The benevolence of royalty

   b. Bravery in the face of danger

   c. The obliviousness and folly of wealth

   d. The joys of youth

3. Which of the following quotes from the text is an example of imagery?

a. "He has directed, in great part, the movable embellishments of the seven chambers, upon occasion of this great fete; and it was his own guiding taste which had given character to the masqueraders."

b. "The seventh apartment was closely shrouded in black velvet tapestries that hung all over the ceiling and down the walls, falling in heavy folds upon a carpet of the same material and hue."

c. "And then the music creased, as I have told; and the evolutions of the waltzers were quieted; and there was an uneasy cessation of all things as before."

d. "The whole company, indeed, seemed now deeply to feel that in the costume and bearing of the stranger neither wit nor propriety existed."

4. "The Masque of the Red Death" incorporates which elements of Gothic style? (select all that apply)

a. A curse

b. Atmosphere of mystery and suspense

c. Macabre imagery

d. A theme of confinement/isolation

The following section will serve as a reflection of your thoughts/opinions after completing the workshop. If you feel the need to clarify or add additional information, please feel free to write comments next to the responses or on the back of the sheet. Thank you!

5. How would you describe your level of confidence in your ability to read short stories for comprehension after participating in the creative dance process?

a. Extremely confident

      b.   Slightly Confident

      c.   Neutral

      d.   Slightly Unconfident

      e.   Extremely Unconfident

6. Please provide your reasoning for your answer to the previous question:

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7. Do you feel that the dance processes impacted your confidence as a reader?

      f.   Yes, I feel much more confident now than before

      g.   Yes, I feel slightly more confident now than before

      h.   Neutral, my confidence level is unchanged

      i.   No, I feel slightly less confident now than before

      j.   No, I feel much less confident now than before

8. Would you like to provide any further comment on the previous question?

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9. Do you think this workshop helped you gain a deeper understanding of literature? Why or why not?

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10. Do you think you would consider utilizing creative dance processes to study literature in the future? Why or why not?

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Title of Project : Arts-Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension of Short Stories and Self-Confidence in Critical Reading Skills
Workshop #3 Pre-Test for High School Students– "The Story of an Hour" by Kate Chopin

Participant Code:_____

Date:_____

Please respond to the following questions based on your reading of "The Story of an Hour" to the best of your ability.

1. The setting of the story is rather limited, primarily staying in a single location. What

   effect does this have on the reader's interpretation?

   a. It stresses the importance of home for Louise

   b. It indicates that the setting is unimportant to the story

   c. It creates a sense of isolation for Louise

   d. It sets an eerie tone

2. What does the description of the armchair facing the open window represent? (circle all

   that apply)

   a. Louise's longing to venture out into the world

   b. Louise's comfort in her current life

   c. The opportunities that await Louise after her husband's death

   d. Foolish spending by the wealthy

3. What major theme is represented throughout the story?

   a. The trials of marriage

   b. Independence and challenging social conventions

   c. The weakness of the females

   d. The fatality of hubris

4. The ending of "The Story of an Hour" can be seen as an example of what literary device?

    a. Satire

    b. Hyperbole

    c. Allusion

    d. Irony

The following section will serve as a reflection of your thoughts/opinions based on your reading of "The Story of an Hour." If you feel the need to clarify or add additional information, please feel free to write comments next to the responses or on the back of the sheet. Thank you!

5. How would you describe your level of confidence in your ability to read short stories for comprehension?

    a. Extremely confident

    b. Slightly Confident

    c. Neutral

    d. Slightly Unconfident

    e. Extremely Unconfident

6. Please provide your reasoning for your answer to the previous question:

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7. Did participating in the second workshop change how you might study short stories on your own?

_____

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Title of Project : Arts-Integrated Teaching of English Literature: Using Dance Making Methods to Enhance High School Student Comprehension of Short Stories and Self-Confidence in Critical Reading Skills

Workshop #3 Post-Test for High School Students– "The Story of an Hour" by Kate Chopin

Participant Code:_____

Date:_____

Please respond to the following questions based on your reading of "The Story of an Hour" to the best of your ability.

1. The setting of the story is rather limited, primarily staying in a single location. What

   effect does this have on the reader's interpretation?

   a. It sets an eerie tone

   b. It indicates that the setting is unimportant to the story

   c. It creates a sense of isolation for Louise

   d. It stresses the importance of home for Louise

2. What does the description of the armchair facing the open window represent? (circle all

   that apply)

   a. Louise's longing to venture out into the world

   b. The opportunities that await Louise after her husband's death

   c. Foolish spending by the wealthy

   d. Louise's comfort in her current life

3. What major theme is represented throughout the story?

   a. The weakness of the females

   b. The trials of marriage

   c. The fatality of hubris

    d. Independence and challenging social conventions

4. The ending of "The Story of an Hour" can be seen as an example of what literary device?

    a. Irony

    b. Hyperbole

    c. Allusion

    d. Satire

The following section will serve as a reflection of your thoughts/opinions after completing the workshop. If you feel the need to clarify or add additional information, please feel free to write comments next to the responses or on the back of the sheet. Thank you!

5. How would you describe your level of confidence in your ability to read short stories for comprehension after participating in the creative dance process?

    a. Extremely confident

    b. Slightly Confident

    c. Neutral

    d. Slightly Unconfident

    e. Extremely Unconfident

6. Please provide your reasoning for your answer to the previous question:

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7. Do you feel that the dance processes impacted your confidence as a reader?

       f. Yes, I feel much more confident now than before

       g. Yes, I feel slightly more confident now than before

       h. Neutral, my confidence level is unchanged

       i. No, I feel slightly less confident now than before

       j. No, I feel much less confident now than before

8. Would you like to provide any further comment on the previous question?

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9. Do you think this workshop helped you gain a deeper understanding of literature? Why or why not?

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10. Do you think you would consider utilizing creative dance processes to study literature in the future? Why or why not?

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11. Would you consider the creative dance processes utilized in these workshops appropriate to incorporate into your current English literature classes? Why or why not?

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