

The Effect of Dancers' Clothing on Perception of Performance Ability

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Abstract

Dancers spend several hours a day training in studios where mirrors are present. Observations in the mirror serve as feedback for establishing line, unison, and clarity, and may also impact their perceived performance. As such, clothing may also influence perception of performance ability. This study explores clothing as a potential contributing factor to a dancer's perceived self-confidence and performance ability while executing movement.

This descriptive research consists of twelve participants who performed two movement phrases in a dance studio with mirrors, under two different clothing conditions. Immediately following **each** of the participant's performances with each clothing condition, they were asked to take a questionnaire to evaluate their perceived performance. Participants returned a week later to view a video of themselves in each phrase for both conditions and took the questionnaires again.

A pilot study was conducted. The hypothesis is that, the tighter fitting clothing option (Option A), compared to the loose-fitting clothing (Option B), and regardless of movement type, will have a negative effect on dancer's perception of their performance ability. The data from this research enhances current knowledge and promotion of dancer wellness, regarding psychological health and overall dancer well-being. This research has been approved for use of human subjects by the University of Wyoming IRB.

Introduction

Dance at the collegiate level requires discipline, persistence, and many hours in the dance studio perfecting movement. The aesthetic of the field emphasizes lean, yet physically strong bodies. The stress of obtaining this body aesthetic can bring out a dancer's perfectionist tendencies and impacts self-confidence and self-perception. "A dancer's personal vision of

his/her body is an important part of psychological health and well-being, and it can help or hinder dance performance”.¹ One contributing aspect to a dancer’s self-perception is the existence of mirrors in most dance classrooms. Mirrors have been shown to negatively affect dancers’ self-perception. According to Radell’s 2004 study, “higher skilled students performing without mirrors experienced a significant increase in body image scores, while similar higher performing students taught with mirrors had decreased body image scores...therefore, it could be that dancing without the mirror, for the high performers, encouraged them to be less self-critical.”² The article highlights that not only do the mirrors contribute, there may be other factors that influence dancers’ perceived perception of themselves. Replicating elements of the research design from Price and Pettijohn,³ this study is intended to explore clothing as a potential contributing factor to a dancer’s perceived self-confidence while performing movement. It has been shown that clothing is related to self-perception, “the formality of clothing might not only influence the way others perceive a person, but how people perceive themselves”.⁴ Additionally in Solomon’s study it was discovered that, “Clothing measures showed a consistent and pervasive correlation with scores on public self-consciousness”.⁵ When dancers observe themselves in the studio mirrors for hours a day, there is a chance that their clothing is also influencing their perception of their own performance ability.

¹ Radell, S. A. (2013). Resource Paper: Mirrors in the Dance Class: Help or Hindrance? *International Association for Dance Medicine and Science*.

² Radell, S. A. (2012). Body Image and Mirror Use in the Ballet Class. *International Association for Dance Medicine and Science*.

³ Price, B. R., & Pettijohn, T. F., II. (2006). The Effect of Ballet Dance Attire on Body and Self-Perceptions of Female Dancers. *Social Behavior and Personality*.

⁴ Slepian, M. L., Ferber, S. N., Gold, J. M., & Rutchick, A. M. (2015). The Cognitive Consequences of Formal Clothing. *Social Psychological and Personality Science*.

⁵ Solomon, M. R., & Schloper, J. (1982, September 1). Self-Consciousness and Clothing. <http://journals.sagepub.com/doi/abs/10.1177/0146167282083018>

The goal of this research is to determine if a participants' perceived performance relates to the clothing they are wearing. This research provides the dance community information on whether clothing influences dancers' perception of their dancing ability, enhancing current knowledge and promotion of dancer wellness, regarding psychological health and overall dancer well-being.

Methods

Nine female and three male undergraduate students, between the ages eighteen and thirty, participated in the study. All participants are enrolled in either advanced levels of Ballet or Modern collegiate dance classes were free of injury at the time of trial. The function definition of injury is, any harm or damage to the body that prevents an individual from participating in dance activities for two or more days at full effort. Each participant read and signed a consent form prior to data collection and all experimental procedures that were used in this study were approved by the University ethical review board.

Participants were prompted to bring either tights and a leotard for women, or a tight-fitting shirt and tights for men (Option A), AND sweatpants and a large shirt (Option B). Participants arrived at their assigned time, and were given 15 minutes to warm up and learn two set movement phrases without mirrors. Then, each participant was assigned the type of clothing to change into first, either Option A, OR Option B. The dancer then stood in front of the mirror wearing the first clothing condition and answered with a Likert scale (*5-strongly agree, 4- agree, 3-neutral, 2- disagree, 1-strongly disagree*) the pre-movement prompt, *I feel confident that I will perform well*. Participants performed both the modern phrase and ballet phrase, respectively, in front of the mirror. After each phrase, they answered 5 prompts with the same Likert scale. (*I felt confident executing the phrase, I felt comfortable adding my own qualities to the movement, I*

was accurate in my execution of the movement, I enjoyed performing the phrase, I would feel proud to have others watch me dance this phrase). Each participant was video recorded.

Participants then changed into the other clothing condition (Either Option A or Option B) and repeated the phrase and questionnaires. Participants stood in front of the mirror wearing the second condition and were asked the same pre-movement question. Participants repeated both movement phrases and questionnaires and were recorded again. A week after each participant's initial trial, they watched their videos and participants were given the five prompts again.

*The Cronbach's alpha scale was used in determining the variance and internal consistency of the questionnaires.

Figure 1

Participant Letter: _____

Please answer the following questions as honestly as possible in reflection of your performance in:

Please circle- Option A OR Option B.

5-strongly agree, 4-agree, 3-neutral, 2- disagree, 1-strongly disagree

Modern Phrase

1. I felt confident executing the phrase.
2. I felt comfortable adding my own qualities to the movement.
3. I was accurate in my execution of the movement.
4. I enjoyed performing the phrase.
5. I would feel proud to have others watch me dance this phrase.

Ballet Phrase

1. I felt confident executing the phrase.
2. I felt comfortable adding my own qualities to the movement.
3. I was accurate in my execution of the movement.
4. I enjoyed performing the phrase.
5. I would feel proud to have others watch me dance this phrase.]

(Example of the prompts and scale used by participant to express their perceived performance of the phrases in different clothing conditions)

Figure 2

Please answer the following question as honestly as possible utilizing this scale:

5-strongly agree, 4-agree, 3-neutral, 2- disagree, 1-strongly disagree

1. I feel confident that I will perform well.

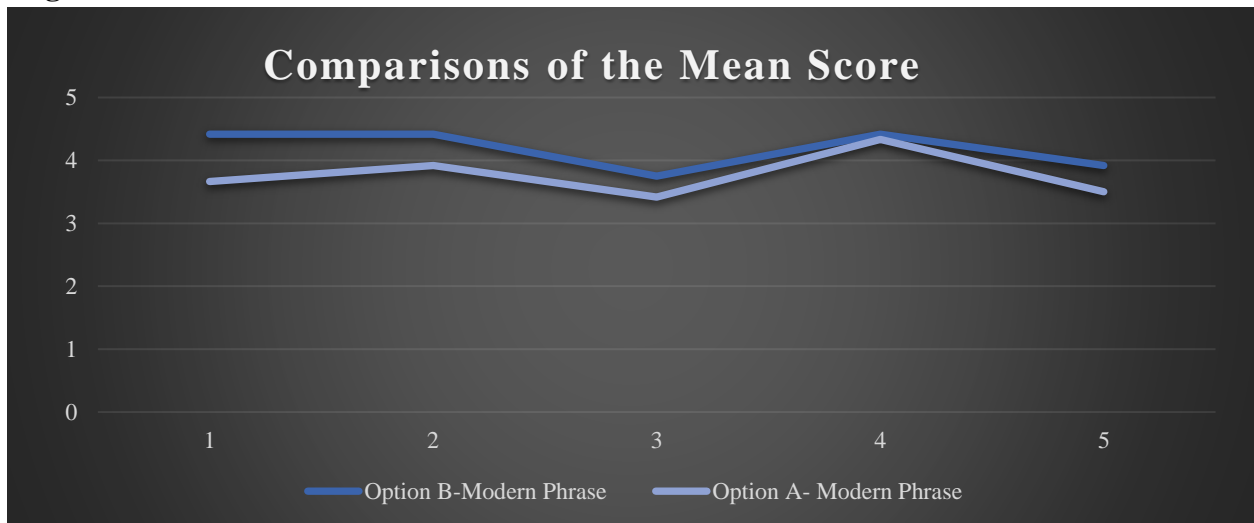
(Example of the pre-movement prompt and Likert scale used by the participant in each clothing condition)

Results- Phase I

Data shows that when participants wore clothing Option A, or tight-fitting attire, while performing the modern phrase, resulting in overall lower answers on the scale, compared to wearing Option B, or loose clothing, and performing the modern phrase. A specific example of this can be seen when participant J's answers on the questionnaire for Option A and the Modern Phrase and Option B and the Modern phrase. Using the Likert scale (*5-strongly agree, 4- agree, 3-neutral, 2- disagree, 1-strongly disagree*), participant J reported, 2, 3, 2, 1, 1 on prompts 1-5 respectively (Figure 1), for clothing Option A, and the modern phrase. However, participant J's data showed to increase to 5, 5, 4, 5, 5 on prompts 1-5 respectively (Figure 1), for clothing Option B, and the modern phrase.

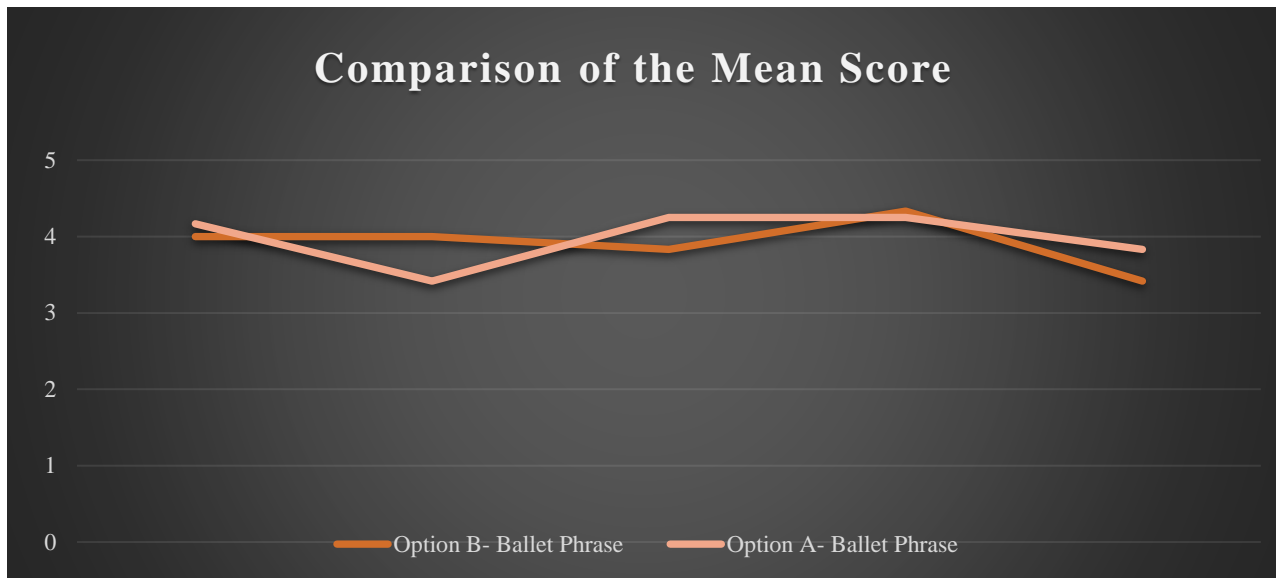
Data trends showed that there was no indication of a trend when participants wore loose clothing or tight-fitted clothing when performing the ballet phrase.

Figure 3



(A comparison of the mean ratings on the Likert scale of performing the modern phrase, with both clothing conditions)

Figure 4



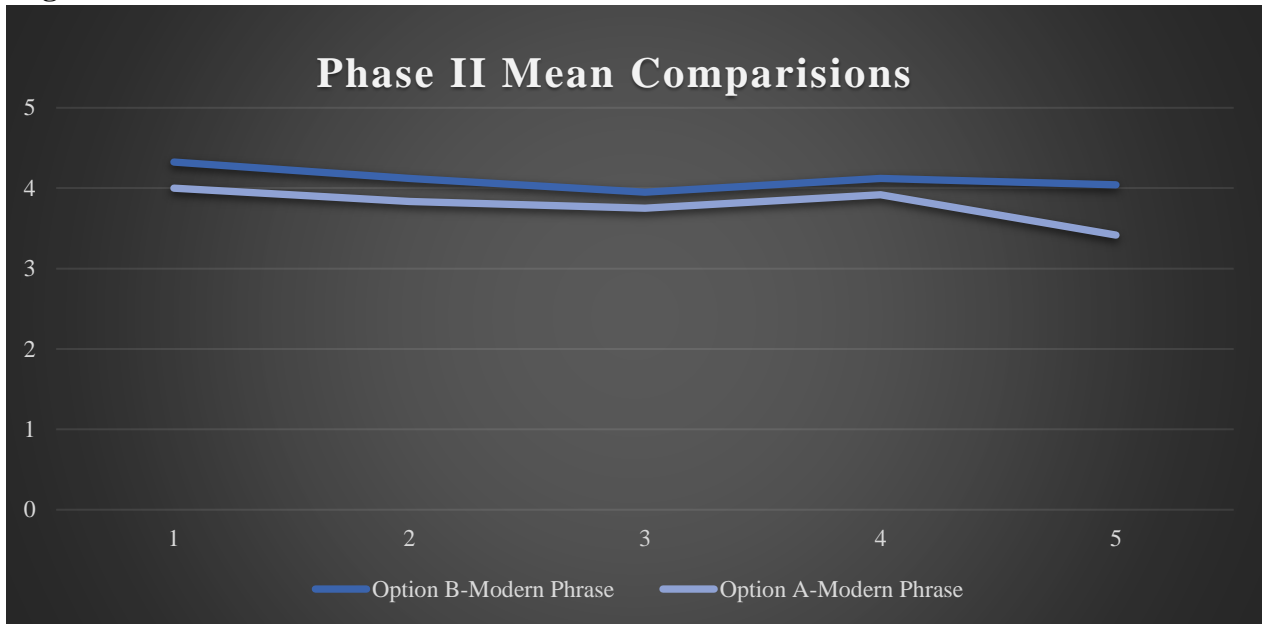
(A comparison of the mean ratings on the Likert scale of performing the ballet phrase, with both clothing conditions)

Results- Phase II

Like the results from Phase I, data shows that when participants watched the videos of themselves in the tight-fitting attire, performing the modern phrase, answers on the 1-5 scale were overall lower than that of participants viewing the loose clothing and the modern phrase. Regarding both the loose clothing and tight-fitting clothing, and performance of the ballet phrase, the participants rated their performance with no indication of a trend either way.

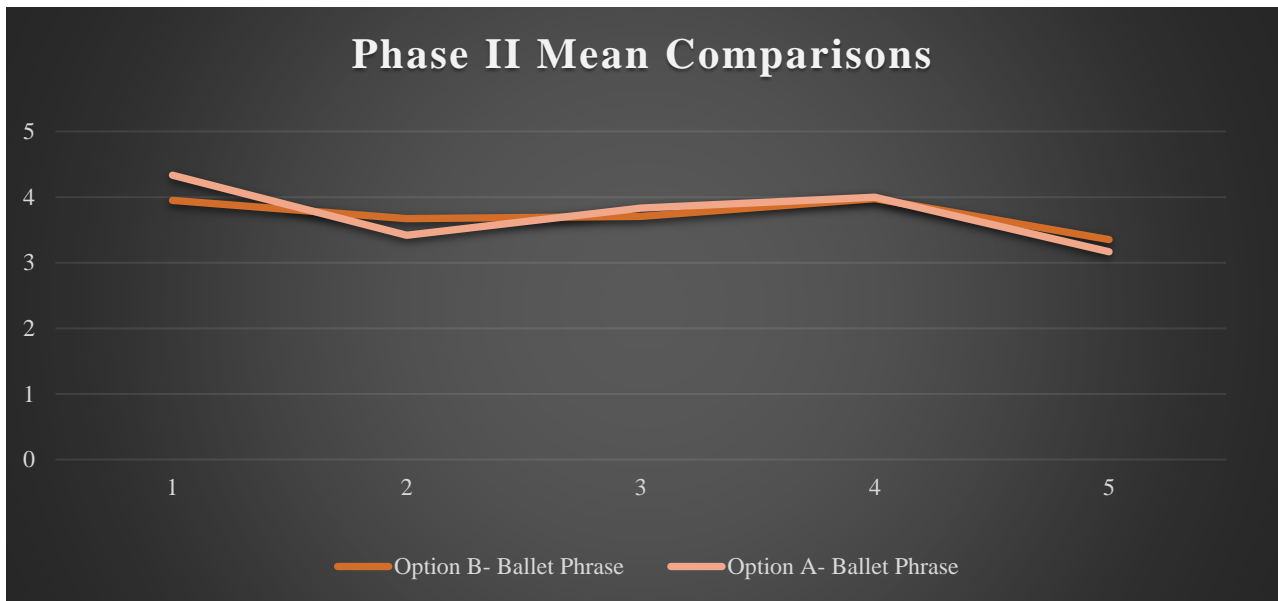
When comparing the graphs for the mean scale ratings for each question, Phase I to Phase II share similar overall trends, displaying the consistency in perceived performance for the participants while performing and watching themselves perform.

Figure 5



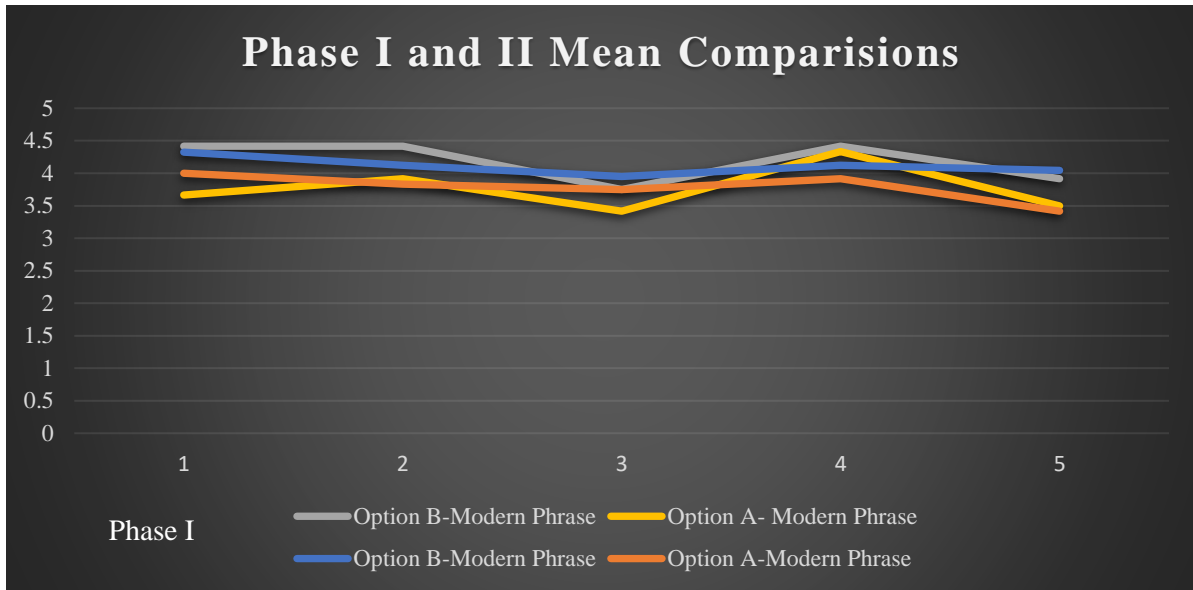
(A comparison of the mean ratings on the Likert scale of watching participant's own video of the modern phrase, with both clothing conditions)

Figure 6



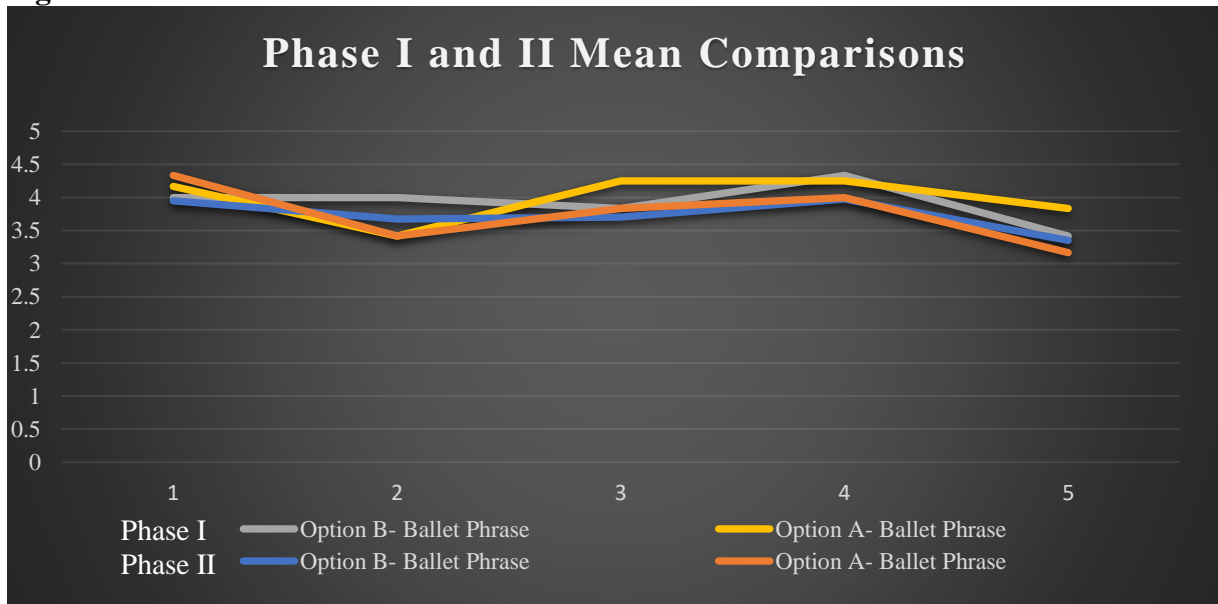
(A comparison of the mean ratings on the Likert scale of watching participant's own video of the ballet phrase, with both clothing conditions)

Comparing Data from Phase I or Phase II- **Figure 7**



(A comparison of phase I and phase II mean rating on the Likert scale of participant's perception of personal performance in both the Modern and Ballet phrases with each clothing option)

Figure 8



(A comparison of the mean ratings on the Likert scale of watching participant's own video of the Ballet phrase, with both clothing conditions)

Figure 8

Pre-Movement Question	
Option A	Option B
4.41667	4.333333333
	0.083333333

(A comparison of the mean ratings on the Likert scale, and variance of the scores, of the pre-movement question for each clothing option., before movement)

The average scaled answer for the attire, or Option A, was approximately 4.4, and 4.3 for the loose clothing or Option B. The variance of the data for the pre-movement prompt was .08, indicating that with a small variance, there is no significant conclusion to make about the dancer's perceived performance while just simply wearing the clothing without movement.

The general variance of the data, was between .3-1.25 for the five prompts. Most variances were on the lower range between .3-.6 displaying trends in the data regarding certain prompts on the questionnaire. The questions with the smallest variance, therefore had more people feel the same about that question for a specific clothing option and movement phrase. The alpha scale produced values between .8-1 for each prompt, showing that the internal validity and reliability was good within the tests, indicating correlation between clothing and change in perception of performance.

Discussion

With a low variance, good internal validity and reliability, and an indication that the tighter fitting attire impacted the dancer more when performing a modern phrase can be implied. Data explains that there is no identified significance between the clothing a dancer is wearing and performing a ballet phrase. This indicates the possibility that it doesn't matter what an individual wears in ballet class or a performance, and perception will remain constant. Traditional ballet vocabulary calls for specific aesthetic and lines, while modern dance focuses more on quality of movements and perhaps the dancers felt more able to tap into the qualities of

this movement vocabulary more in loose clothing and individual preference determines a dancer's perceived performance in ballet. The constant use of mirrors as well as body image and tight clothing have been a popular topic in dance, often giving these ideas a negative connotation. However, according to the data, results do not show that the mirror, live performance, compared to the video, effected dancer's perceived performance differently. During research collection, statements were made by a few of the participants about Option A, before and after performing the modern phrase. These include, "This doesn't feel right", "It feels so wrong to modern in ballet clothes" and, "I look stronger in my modern clothes". These statements by some of the participants describe the participants lower comfort level as well as an example of a preference for certain aesthetic for modern dance, and therefore a variance of preference of clothing in all individuals.

With the results showing that the tight-fitting clothing only effected perceived performance for the modern phrase, and not the ballet, this displays that some dancers may prefer tighter clothing, and some may not. There is also personal pre-established preference for style of dance relating to clothing. Based on the numbers, the common view that tight clothing causes more negative effect to an individual's confidence and/or perceived performance may not be accurate, according to this research. More research is needed to establish a better understanding on dancer's mental health, performance, and actual performance.

Limitations

One of the limitations of this study might include the small participant pool. Other limitations might have been participant's low comfort level in clothing type, phrases, or being video recorded. Additionally, there was no specified differentiation between participants wearing clothes they learned the phrases in, and their loose clothes or option B clothing. This may have

affected the results of some participants, due to increased comfort performing in the clothes that they learned the phrase in, even without mirrors in the room they learned the phrases in. Other general statements that were verbalized were, “The mirrors in this studio are more slimming” and “The video makes me feel better because of the slight silhouette and lighting”. Therefore, preference for a space that the participants use for academia regularly could have altered participant’s perception, as well as the lighting in the studio, which allowed for more backlight due to structure, providing for less visible detail in the videos. Additionally, a dancer’s preference, personal talents, and technical abilities are other elements that are difficult to measure or regulate.

Conclusion

The information gathered in this study provides partial support for the hypothesis that that the tight-fitting clothing, Option A, compared to the loose-fitting clothing, Option B, regardless of movement type, will have a negative effect on dancer’s perception of their performance ability. Realistically, this occurred for only one movement type, rather than being a generalized statement for all styles of dance. Wearing loose clothing, or tight clothing, does not seem to correlate to dancer’s perceived performance ability when doing Ballet. There is sufficient support for the idea that type of clothing effects dancer’s perception of their abilities, and therefore, clothing and costuming are elements that should be understood and researched.

Further study in this area might include broadening the types of movement to research with different types of clothing style, to get a more holistic view of clothing effects among dancers and dance as a whole. Rather than having dancers choose their clothing, providing clothing would allow less potential for bias within their answers to the prompts. Future research could potentially explore how observing dancers in different settings such as class and

performances, can provide an additional perspective rather than a one-time in-person trial provided by this research study. A comparison of advanced dancers to less technically advanced dancer populations might also offer useful information as to the extent that technique and training has on confidence in addition to clothing conditions. Overall, this study has made available, important insight on self-perceived confidence among dancers, in regards to what they wear on their bodies.