FOOTBALL CROWD BEHAVIORAL RESPONSES TO A UNIVERSITY MARCHING BAND'S MUSICAL PROMPTS

by

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THESIS ABSTRACT

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Decades of market research have investigated how music can influence consumer purchase, food consumption, and alcoholic drinking. Before market researchers declared music an influencer of atmospheric perception, sociologists discovered the sway of music on crowd collective action in sporting events, political rallies, and societal unrest. There remains a lack of research on how live music may influence football fan behavior during a game. Therefore, this study observed the number of behavioral responses from university students elicited by a university marching band's music prompts ($N = 11$) at an American university football game. By recording observations of behavior in the student section during home football games, this investigation found that from the total number of music prompts observed (n =202), 50% (n =100) of the music prompts elicited a behavioral response from the student section.

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DEDICATION

I dedicate this thesis to Mr. Randy Rhody, Former Band Director of DeKalb County Bands in Smithville, Tennessee, who invited me to join the flute section of the DeKalb County High School band in 1994 as an 8th grader. Mr. Rhody's dedication and guidance led our band to win the Tennessee State Marching Band Small Division Championship in 1995. Mr. Rhody encouraged me to audition for the Drum Major position as a Freshman and awarded me the Drum Major position in 1996.

The course of my life changed dramatically after being a member of the Fighting Tiger Marching Band and working under Mr. Rhody's direction and leadership. I will forever be grateful for the long hours of practice on and off the field, and the love of music that Mr. Rhody taught me through countless 'one more time' rehearsal run-throughs.

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CHAPTER I

INTRODUCTION

American Military and Marching Bands

A band is considered to be an ensemble of musical instruments playing together (Sadie, 1980). Bands are typically named by their specific function and the style of music that they play, i.e. rock band, jazz band, wind band, zydeco band, or marching band (1980). The earliest known wind bands in Europe were established in the thirteenth century and consisted of shawms, trumpets, and drums (1980). In the fifteenth century bands were more itinerant and were requested to perform music for dance in the courts, service in churches, and city protection in the watchtowers (1980). By the sixteenth century, bands performed for more distinguished events such as coronations, public ceremonies, and processionals (1980).

Alongside European musical traditions of singing and dancing, bands came to North America with the colonists and military units in the seventeenth century, (1980). As bands held an important role in the European musical life, they established a similar significant role in the new American colonies and were popular for outdoor entertainment as well as marching in parades (1980).

During the eighteenth century, American music culture grew through the establishment of military band corps - an ensemble comprised of woodwinds, brass, and percussion instruments reserved for regimental functions (1980). The earliest reference to a band in North America was published in a 1714 newspaper account of a band welcoming the celebrations of George I of England to New York (1980).

These ensembles, referred to as bands of music, although associated with the militia, performed civilian duties and played in military and civilian ceremonies, parades, concerts, amusement parks, seaside resorts, county and state fairs, and national and international expositions (1980). Benjamin Franklin recognized the impact that band music had on the military, raising the spirits and morale of the militia members. As commander of a militia regiment, Franklin ordered musicians to march in ranks to prepare his soldiers for marching through the streets of Philadelphia in 1756 (Nicholls, 1998). Benjamin Franklin identified that the musicians helped promote a celebratory public spirit amongst the citizens as well as uplift the troops' morale as they marched in parade (1998).

In 1783, as the American Revolutionary War concluded, bands of music existed in the most cities and towns and were part of the celebrations of George Washington's New England tour (Sadie, 1980). Inaugurated as the first president of the United States, George Washington traveled by stagecoach through New England from October through November of 1789, visiting all the northern states that had ratified the U.S. Constitution (History, 2010). One account from the tour tells of a brass band that George Washington encountered on a fishing trip. "The most important visitor to Newcastle was George Washington who visited there in 1789; naturally, the natives immediately took him fishing, but of course, catching a fish was out of the question on account of the din of the brass band. A bright fisherman, however, anticipating this possibility, had tied a fish to the end of his line and "the Father of his Country" hauled up a large cod which should have been mounted and placed among other Newcastle antiquities" (Forbes, 1920, p.138).

In 1798, the United States Marine Corps officially established a fife-and-drum corps of 32 players that functioned as the top ranking military band (Grove, 2008, p.283). By 1802, this fife-and-drum band transformed into a brass band that is said to have operated outside of the military routine on occasion, “though the records were destroyed in the War of 1812” (2008, p.283). By 1854, the U.S. Marine Corps Band began to present open-air concerts at the U.S. Capitol or the White House and these productions became an established U.S. custom (2008) still practice today. Bands of music and field bands were plentiful during the American Civil War [1861-1865] with estimates that the Union Army had 500 bands with over 9,000 players (Sadie, 1980). The American military organization made a distinction between field bands for military function and bands for civilian functions (1980). Military field music was played by bands for military purposes such as tapping a cadence to accompany marching soldiers, signaling warnings during active fighting, and presenting orders to the field military units (1980). The civilian bands served a different capacity from the field military bands by playing more ceremonial and social functions (1980). These field bands played for military and civilian ceremonies as well as for entertaining soldiers (1980). In 1889, *Harper’s Weekly* estimated that America had 10,000 active military bands (1980). As both types of military and civilian bands were fixed establishments in American music, community town bands were gaining popularity and distinction in American towns (1980).

American Town Bands

The town band helped foster a festive, celebratory public spirit among the citizens, which consequently infected the troops with the same optimistic spirit (Nicholls, 2004). In addition to morale boosting, town bands were considered a mark of social status

(Sadie, 1980). "A town without its brass band is as much in need of sympathy as a church without a choir. The spirit of a place is recognized in its band" (Nicholls, 1998; quoted in Camus, 1986, p.133).

With military bands and town bands firmly embedded in the American music culture, the period after the Civil War witnessed a new category of bands taking shape. Under the leadership of exuberant conductors like Patrick S. Gilmore (1829-1892) and John Philip Sousa (1854-1932), professional bands were initiated and growing (Nicholls, 2004). After rising to national distinction through conducting the United States Marine Band, John Philip Sousa established his own professional civilian band in 1892 (2004). Even though full-time professional bands were the exception, his ensemble of fifty players in uniforms with a regimented performance style toured the United States and Europe well into the twentieth century (2004). "No American music had a firmer basis in the musical tastes and dispositions of more Americans than nineteenth century band music" (2004, p.162).

University Marching Bands

As town bands remained active status symbols into the early twentieth century, this same time marked the genesis of university bands (Sadie, 1980). Harvard and Yale Universities both report that they had bands established in 1827 (1980). However, the earliest continuously operating university band can be traced to the University of Notre Dame, South Bend, Indiana, in 1840 (Cumberledge, 2017).

The inclusion of bands at sporting events grew in importance, and by the end of the nineteenth century, pre-game and half time football performances were commonly performed by marching bands (Sadie, 1980). The University of Notre Dame claims that

when college football appeared at Notre Dame in 1887, a band was on hand and ready to play (University, 2016). The marching band was now a separate entity from the military field bands and benefited from the rising popularity of intercollegiate football of the early twentieth century (Sadie, 1980). Around 1905, university marching bands were regularly performing on football fields during the halftime interval of intercollegiate football games (Bohannon, 2004). In 1910, the growing interest in public, professional, and military bands led to the school band movement (Birge, 1928). One example of the rising school band movement is found in public university offering university band class as an official course for enrollment. The University of Oregon course catalog first lists "University Band" as a course offering in 1908 ("History", n.d., para. 1).

A marching band is commonly defined as a group of instrumental musicians marching in formations on a field while playing music for entertainment and uniformly dressed. Instruments of the marching band include brass, woodwind, and percussion instruments as well as a non-marching percussion ensemble that stays on the sidelines of field shows. Over the centuries, marching bands have included color guards, rifle guards, baton twirlers, or majorettes; these groups can be defined as performers who add a visual interpretation to the music through the use of props, flags, and rifles. Marching bands typically wear a uniform that includes the school or organization's colors, name, mascot, or symbol (Sadie, 1980).

Arthur Bartner reports that in 1907 Purdue University was the first university whose marching band formed a letter on the football field (Bohannon, 2004). Purdue University confirms Bartner's report claiming to be "the first marching band in the nation to break military ranks on the football field to form a letter (the Block "P")" ("All-

American," n.d., para. 3). However, The University of Illinois Fighting Illini Marching Band stakes the claim for being the first marching band to play fanfares from the football field goal line and march a block "I" down the field (Sadie, 1980). The Fighting Illini also takes credit for being the first band to march a half time show on the football field in 1907 ("College", n.d.). Regardless of who marched on the field first, what remains constantly reputed are the contributions the school band movement made to the lives of young American musicians in nearly every community in the United States (Hansen, 2005).

Edward B. Birge was a founding member of the Music Supervisors National Conference, which later became the Music Educators National Conference (MENC). In his book on the history of music in American public schools, Birge (1928) states that music was of vital importance to winning World War I [1914-1918]. He states, "the value of music was brought home to the people with all the force of governmental sanction. Music was shown to be a vital force in national life" (1928, p.201). Since bands were needed for every training camp and regiment, hundreds of bandleaders were trained in government schools (1928). When the war ended in 1918, the government-trained bandleaders returned to America and accelerated momentum in the school band movement that had suffered during the war (1928). The increasing amount of band activity in the towns and communities perpetuated the necessity of having a band in every school (1928). With the rising number of bands in public schools came the increase in demands for school music superintendents to secure money for instruments and hire instrumental music specialists as well as music teachers (Mark, 2007).

Music Education Marching Band Discussion

Although the origins of the school marching band are found in military bands, the purpose of the marching band has been debated for almost as long as its existence. In 1930, Mark H. Hindsley, Supervisor of Instrument Music Cleveland Heights, Ohio, wrote an article to the *Music Supervisors' Journal* titled, "The Marching Band" (Hindsley, 1930). In the article, Hindsley stated, "the value of a good marching band to the school or institution to which it belongs and to the community can hardly be overestimated" (1930, p.15). Hindsley found the marching band's purpose to be in its advertising power for music education (1930). Because the marching band was the most exposed of all the school's music ensembles, the value of the marching band was to exhibit such a grand display of music that the community will attend other music concerts by various music ensembles in the school and community (1930). Hindsley noted, "in most communities at present there is a great amount of interest and importance attached to football games, and at those events the band performers are usually big attractions" (1930, p.15). Hindsley declared that the purpose of marching bands was for entertaining the community and advertising music education; however, he debated the marching band's ability to teach participants valuable musical skills (1930).

Thirty years later, other band directors agreed and disagreed with Hindsley's stance. In 1966, the *Music Educators Journal* published "A Marching Band Symposium" with opinions from marching band directors from across the United States. Many of their views repeated Hindsley's stated purpose of the marching band as advertising for music education (Ryder, Whitwell, Jensen, & Bissell, 1966). David Whitwell, the conductor of Montana State University Bands, stated, "the marching band exists for the sole purpose

of entertainment" and can "also be a valuable public relations tool for your department" (Ryder et al., 1966, p.64). Whitwell continued to say that "there will always be a marching band, at least so long as there is football" (1966, p.64). Whitwell described the music education value of the marching band being that if a student could learn music and play while marching, then the student had learned skills that could transfer into the concert band setting (1966).

William E. Bissell articulated in the Symposium that the marching band was a "distinctive musical unit" (1966, p.66). Bissell, then Director of the University of Washington Marching Band, thought that the marching band was a pathway for teaching "precision, personal neatness, carriage, rhythm, teamwork, loyalty, coordination of mind and muscle, organization, spirit, price, and rigid discipline" (1966, p.66). He also considered the marching band to "add to the general school culture" through its performances at games and rallies; in addition, he thought the marching band was the "window through which the entire school can be viewed" (1966, p.66). Bissell concluded his section of the Symposium by stating that "the football band, is developing into a new art form, which is deeply rooted in American traditions and culture" (1966, p.66).

In the same Symposium article, Lamar K. Jensen, the Supervisor and Director of Music Education in West Linn, Oregon Schools stated that the marching band functioned as a great public relations tool for the music program and schools in general as it was the "music organization most often heard and seen by the greatest number of people" (1966, p.65). As much as Jensen listed the advantages of marching bands in the article, he also introduced oppositional factors of a marching band program (1966). He cited excessive time preparing for football season, unreasonable expenses, poorly performed

performances, and inferior quality of music as a few of the reasons why schools should be cautioned against having a marching band program (1966). He even goes to the length of saying that "too much of this type of activity [marching band] cannot be classified as music education" (1966, p.65).

The later the same year, the *Music Educators Journal* published a critique to the Symposium article that proposed several reasons why the marching band was not the valuable, skillful musical ensemble that some of the previous consortium of band directors stated it to be (Long, 1966). The critique's author, Ralph G. Long, diminished the value of the marching band to be like "most television programming…made for mass consumption…that dare not challenge the viewer's imagination" (1966, p.12). He stated that the marching band exists "to hold a football audience in its seat until the gladiators return" (1966, p.12). Even though Jensen and Long had similar views on the disadvantages of the marching band, Jensen was able to surmise that there were "several reasons to justify maintaining the marching band in the instrumental program" (Ryder, 1966, p.66).

A few years later the *Music Educators Journal* published an article written by Kenneth J. Bloomquist, the director of bands at Michigan State University, which stated that the purpose of the marching band was "to entertain through music with the added advantage of visual excitement" (Bloomquist, 1974, p.36). Bloomquist added that the main objective of the marching band must be for entertainment because without entertaining, the band did not have a reason for being (1974). Through the decades, the question of the marching band having to sacrifice musical proficiency for marching precision escalates. Bloomquist questions whether the proof of success is evidenced

through the “exhilarating roar or standing ovation from the crowd” (1974, p.37). This sentiment is echoed almost a decade later in another article from the *Music Educators Journal* (Rockefeller, 1982). The author and director of bands in North Carolina, David R. Rockefeller, stated that the marching band experience offers the best of both worlds for the band members and audience: constantly changing show to keep band members engaged, visual excitement of color guard, and a drill designed to appeal to the audience (1982). Rockefeller also stated the extreme challenges by keeping the marching band show entertaining as well as musically accurate, because “loud volume, poor embouchures, improper breath support and instrument carriage” will create a less appreciated response from the audience (1982, p.32).

As the debate continues amongst marching band directors, the argument persists about the value of cheering on the football team versus focusing on the music educational value of the marching band show. In 1985, the *Music Educators Journal* posed the question, “Is Marching Band in step with Music Education?” (Mason, 1985) In this examination on the marching band, several writers stated their ideas for the purpose, value, and sustainability of the marching band. One author wrote, “So many people center their social life around athletic games, and the only time they hear or see a band is at a football or basketball game. As a musical organization, a marching band should not exist just to cheer the team on to victory and fill in the time while the team takes a breather” (Mason, 1985, p.27). This same writer concluded that the “marching band is as educationally valid as we are willing to make it” (1985, p.27).

Abraham H. Maslow, American psychologist, authored another perspective as his understanding of music to be an “essential part of becoming fully human in the finest

sense" (1985, p.28). Maslow said in *A Theory for Human Motivation*, "A musician must make music, an artist must paint, a poet must write, if he is to be ultimately at peace with himself" (Maslow, 1943, p.382). Therefore, participating in the marching band could be viewed as a "direct avenue to this needed exposure to self-fulfillment" (Mason, 1985, p.27). However, not all contributing writers agreed with this sentiment. Lynn Wilke, retiring music teaching in New York, wrote that the marching band was "far less expressive than the symphony orchestra" but because wind instruments were easier for beginners to play, they took over the school music scene (1985, p.30). Nevertheless, Wilke also makes the need for marching band at football as essential as the Cavalry band was to battle (1985). He stated, "Marching bands fit in here [football] in the same way the Seventh U.S. Cavalry band of General George Armstrong Custer fit at the Battle of Washita in the Indian Wars. As the male human is, by nature, a hunter/killer, football and the military will be with us for a long time" (1985, p.30). As Wilke stated, "war, football, and marching bands are here to stay," intercollegiate athletics are major social forces of American society and the marching band maintains an essential part of the festivities (1985, p.30; Student, 1978).

An opposing opinion from different contributing commentator to this same article wrote, "if we are really music teachers, then we should prioritize our activities according to how well they allow us to teach music" (1985, p.31). "Few of our students could consider this [marching band] a vital and integral aspect of their preparation for a musical life beyond high school" (1985, p.31). Even though marching band directors continue the debate over the relevancy of the marching band as a musical ensemble and the marching

band's purpose on the field, marching band members remain dedicated to their form of musical expression.

In 2008, the College Band Directors National Association Athletic Band Task Force determined that university athletic bands play a vital role on their respective campuses ("College," 2008). In their task force document, they state that university athletic bands often fulfill the most diverse role of any student organization on campus (2008). "Athletic bands are purveyors of school tradition, pageantry, and pride on campus" (2008, p.1).

Marching Bands: A Tradition

Even though the debate over the purpose, value, and impact of the marching band seems to be as old as the marching band itself, statements supporting the marching band are many. Marching bands are viewed as an important part of American music society, a tradition that descended from American military bands. Marching bands are hailed as the people's ensemble (Discovery, 1988). In 1978, Frank Wickes, University of Florida, Gainesville Director of Bands, stated, "the greatest single booster of morale, pep, and spirit [short of victory by the team] is the quality marching band at football games" ("Student," 1978, p.26). Marching bands stem from the history of the military band that accompanied soldiers to the front lines of war. Military bands are considered to be as important to the military as guns (Discovery, 1988); therefore, the question can be asked if university marching bands are of the same caliber of influence to university football games as military bands are to war. The director of the Syracuse University Marching Bands offers this supporting statement in 1956:

> It is conceivable that within a few years, some musicians of excellent taste who have become marching band directors, could, on a single Saturday afternoon, do as much for the cause of good music as some concert orchestras have done in an entire season. In a single performance a college marching band plays to an audience of from 80,000 to 100,000 and to additional thousands via radio and television. Good music need not be uninteresting to football fans, and high school and college marching bands owe it to their self-esteem to present the best possible under all circumstances. (Stith, 1956, p.53)

While examining the bands of music, military bands, and marching bands history of American music, there remains a question of the power of music to be an influential factor of behavior amongst the audiences and crowds of these ensembles. American March King and band director, John Philip Sousa once said, "There is one thing that freezes a musician more than the deadliest physical cold, and that is the spiritual chill of an unresponsive audience!" As bands have existed for centuries and held multiple functions in military, civilian, and athletic settings, an examination of how music influences an audience or crowd could outline a purpose for marching bands other than tradition or entertainment. Can marching band music played during football games influence the behavior of a football fan crowd? A review of literature investigating how music has been used as an element of influence shows that music can be a persuasive factor in consumer marketing, branding design, and behavioral affect. However, inquiries into how a university marching band can influence the behavior of a football fan crowd remains under investigated. Therefore, this survey of research details how music has been found to influence time, money, food, and human behavior.

CHAPTER II

REVIEW OF LITERATURE

Research on the Influence of Music

Plato said, "Music is a moral law. It gives soul to the universe, wings to the mind, flight to the imagination, and charm and gaiety to life and to everything" (Lubbock, 1907, p.173). Aristotle said,

> Music may be pleasurable in itself. It may relax and refresh the mind. It may present images of states of character such as anger, calm, fortitude and temperance or it may inspire such states or release emotions in listeners or stimulate them to action, in each case affecting the character of the soul. And music may be an object of speculative inquiry, making a contribution to the cultivation of our minds and to the growth of moral wisdom. (Alperson, 1994, p.5)

Music is commonly understood as an art form of organized sound that evokes an aesthetic reaction from listeners (Apel, 1973); additionally, music influences the behavior and attitudes of humans in measurable and observable ways (Kniffin, Yan, Wansink, & Schulze, 2017).

In an investigation into the influence of music on group behavior, Kniffin, Yan, Wansink, and Schulze (2017) predicted that happy music would result in cooperative behavior amongst group activities. "Based on results from two extended 20-round public goods experiments, [researchers] found that happy music significantly and positively influenced cooperative behavior" (2017, p.372). A significant positive association between mood and cooperative behavior (2017) was also found in the study. The

investigation explored how music influenced and encouraged individual behaviors and attitudes in the examination of cooperative behavior; in addition to this investigation, music has shown to influence behavior by acting as a distractor during mundane events.

In a study comparing perceived wait time with and without background music, researchers tested participants' perceived wait time in a control-treatment group setting (North & Hargreaves, 1999). One subject group waited in a room with music and one control group waited in a room with no music (1999). Participants in both rooms were instructed to wait in the room until they desired to exit. The results indicated that participants in the no music group waited significantly less time before exiting the room compared to the subjects in a waiting room with music playing (1999). Also, the subjects in the waiting room with music estimated their wait time to be much less than their actual wait time. This study demonstrated that music could influence the perception of time by acting as a stimulant diversion from a monotonous environment (1999).

Along with investigations of the relationship between music, behaviors, and attitudes, researchers also investigate the influence of music on consumer behavior. Consumer researchers consider music as an independent variable or stimulus because research has shown it influences a wide variety of cognitive, affective, and consumer behavior (Almeida Santos & Freire, 2013). Marketing research suggests that music is a major influencer in creating atmosphere due to its impact on "processing, preference, and behavior" (Wansink, 1992, p.715). As a marketing tool, atmosphere is defined as a space intentionally established to generate particular effects on consumers and influence their decision to purchase; furthermore, music is one of the essential elements of atmospheric influences (Kotler, 1973).

While consumer researchers regard music as an influencer of atmospheric perception, music is also a motivating factor in purchase decision (Almeida Santos & Freire, 2013). A study by Andersson, Kristensson, Wästlund, and Gustafsson (2012) developed a hypothesis based on previous investigations of Mehrabian and Russell (1974) showing that the "underlying theory of the influence of music is that environment will influence an individual's emotional reactions; this, in turn, affects an individual's behavioral responses to either approach or avoid the environment" (1974, p.553). From this underlying theory, investigators researched how music affects pleasure/arousal and approach/avoidance behavior; additionally, it studied whether pleasure/arousal could predict approach/avoidance behavior (Andersson, Kristensson, Wästlund, & Gustafsson, 2012). "Results from this investigation clearly showed that music positively affected one of the most important parts of approach behavior, namely purchase" (Andersson et al., 2012, p.559). Results from this study revealed that more time was spent during the shopping experience with music playing in the store background compared to the stores with no music playing (2012).

As well as shopping and consumer behavior, research on music has shown influence in food consumption. Wansink and Van Ittersum (2012) conducted a study to compare the effects of music on food consumption in a fast food restaurant. In the study, food was served to patrons at a franchised fast food restaurant. The treatment for the study was the location in the fast food restaurant in which the patrons were seated. Lunchtime patrons were randomly seated either in the typical fast food restaurant seating (n = 33) or in a converted fine dining room with dim lighting and soft music playing (n = 29). The results showed that patrons consumed less food in the converted fine dining

room with dim lighting and soft music [within the fast food restaurant] compared to patrons in the usual brightly lit dining area with loud, fast music playing (Wansink & Van Ittersum 2012). Researchers noted that the patrons seated in both sections ordered a similar amount of food, but those seated in the converted fine dining room "ate more slowly and left more on their plates" (2012, p.231). Debriefings with the participants indicated that because those sitting in the converted fine dining area were eating at a slower rate, their [fast] food lost its appeal, so they stopped eating (2012). However, after those sitting in the fine dining area finished their meal, they rated the food as tasting better than the rating of those in the loud, colorful, main dining room (2012). This research reveals the premise for why fast food restaurants would prefer loud, fast music in their dining establishments (2012). With rate of food consumption correlating with the speed of music playing in the restaurant, this investigation shows that loud, fast music could increase food sales in restaurants playing this type of music.

The volume level of music [measured in decibels] has also been shown to influence the amount of alcohol consumed in a bar (Guéguen, Jacob, Le Guellec, Morineau, & Lourel, 2008). It might seem coincidental that most drinking establishments play loud music; however, research indicated that this type of music actually influenced the rate and volume of drinks a guest consumes. In an experimental study, investigators measured the amount of draft beer consumed by participants (N=40) compared to the volume of music playing in the bar (Guéguen et al., 2008). The drinking establishments used in the study reported that the music level on usual days is kept at 72 decibels (2008). "The experiment's environmental music played in the two bars was the same as the music usually played (top-forty music in both bars)" (2008, p. 1796). The

results showed that when the sound level was higher (maximum level = 88 dB) there was an increase in consumers' drinking speed equating to an increase in the total consumption of alcohol (2008). The data from this investigation shows that "high environmental level music is associated with a decrease in the amount of time spent by the patrons to drink their glass" (2008, p.1797).

In a separate investigation on the influence of music and alcohol consumption, "Jacob (2006) conducted an experiment in a bar to test the influence of three different styles of music on patrons. According to a random assignment, patrons were exposed to top 40 music, which was usually played in the bar, cartoon music, or drinking songs. Results showed that drinking songs appeared to increase the length of time customers stayed in the bar and the average amount spent" (Guéguen et al., 2008, p.1795). As market research continues to investigate the influence of specific music on consumer behavior, marketing and brand specialists inquire into the effects of music on brand image. Researchers advise that music should be strategically utilized when ensuring a fit between a store's brand image, because data has indicated that particular musical styles are more appropriate for certain stores (Beverland, 2006). Moreover, mismatches of music types and company branding could have negative results on consumer behavior (2006). While marketing research continued to identify music as an element of creating atmosphere and enhancing brand image, the influence of music has also been evident in the research of behavioral responses of crowds and collective action.

Collective Behavior

In 1951, Herbert Blumer created a new way of understanding collective action. Blumer proposed to look at crowd behavior, as well as spontaneous and emotional

responses, as having distinct purpose, meaning, and creative association that could lead toward new societal norms (1951). Blumer called this theory "collective behavior" (Millward & Poulton, 2014). Blumer is not the only social theorist who subscribes to this way of thinking. Kutcher (1983) also identifies crowds as being more than uniform herds of people. He believed they were social in nature and held unique identities, roles, shared values, and common practices to guide behavior.

In a study of crowd collective behavior, Aveni (1977) examined whether university students were aware of knowing someone else or being with someone else at a public event the evening following a rival college football game. Aveni defined crowds as being a collection of individuals in the same approximate space who are experiencing a similar occurrence. Researchers discovered that a large number of participants in the street celebrations were found to be either with friends or to have seen friends at the event (1977). In this study, 74% of the participants indicated that they were at the celebration with one or more friends. Only 26% of the total number of persons interviewed reported that they were attending by themselves. The data could imply that crowds form through collectives of individuals who know each other or have connections to one another (1977). Aveni (1977) concludes from this study that the extent of anonymity in crowds could be treated as a variable rather than a constant. The findings could lead researchers to further examine the influence of variables to crowds and collective behavior. There remains the question of external factors on the behavior of individuals in a crowd including, but not limited to music.

Behavioral Responses to Live Music

In 1992, Kellaris conducted a field study using live music designed to explore responses to music using a quasi-experimental design. Behavioral responses of participants were observed and measured. Kellaris' study examined the behavioral responses to live music in a natural setting [as opposed to a laboratory setting] with music as the focal stimulus object (1992). Because tempo and mode are of theoretic and practical importance as design features of musical products, both elements were used as dependent variables for the study (1992). Kellaris recognized that "musical variables are capable of producing main and interactive effects on consumers' thoughts, feelings, and behaviors" (p. 730). In the study, Greek music was employed for the live music setting because it incorporated a wide range of tempos and modes and typically entailed active audience participation (1992). The focus of this report was exclusively on applause, which was understood as a "simple indicant of hedonic response that is nearly universal across musical audiences," (1992, p.731). Forty songs from standard Greek repertoire were performed live at six different social events in traditionally Greek communities in the United States (1992). Observable behavioral responses of the audience were coded and analyzed; the experiment's dependent variable was amusement response measured as duration of applause in seconds (1992). "A significant non-monotonic (quadratic) tempo-applause relationship was found; applause duration peaked around 147 BPM, then diminished with further increases in tempo" (1992, p. 732). Additionally data found that the specific relationship between musical tempo and hedonic response varied according to the mode of the music (1992). From examples across all modes and a wide range of tempi (68 to 178 BPM), the findings indicated that listeners preferred a moderate level of

stimulation; moreover, the listeners held observable response for songs pitched in minor keys, but changed for major keys and other music modes (1992). Even though Kellaris referenced the generality of findings from this study being limited by the singular type of music being used [Greek], preliminary implications could be drawn (1992). One implication could be that tempo for hedonic response could influence consumers' behavior (1992). Additionally, Kellaris suggested future research in other behavioral responses [beyond applause] to music could be important for the study of consumer esthetics (1992).

In an investigation on motivation of crowd response at political party gatherings, Heritage and Greatbatch (1986) examined that clapping and cheering comprised the most simple and timely means by which an audience could show its collective support. Researchers reported that the psychology of choosing to clap was a decision made by each individual audience member; moreover the decision to applaud constituted a possible membership acceptance of the audience by showing support or refraining from giving support (1986). The choice to clap was riddled with inclusion of the larger whole or exclusion by showing support for a moment that was not universally supported by the crowd (1986). Therefore, at a sporting event the choice to clap was not only a possible showing of support toward the team of choice, but also signifying a motion of support of a particular moment in the match-up. To clap at the wrong time could signal that a particular crowd member was not aware of the details of the game and potentially showing ignorance toward a particular official or game decision (1986). Heritage and Greatbach (1986) support this psychological decision-making process through the findings of their research. "The value of this is clear. If audience members usually

commence applauding only at a moment when they believe that others may do the same, the projection of such a moment may become critical for the initiation of applause" (1986, p.116). Therefore, following the applause, cheers, songs, and chants of a unison collective action, such as a university marching band, removes the possibility of showing game ignorance and crowd exclusion and increases the likelihood of inclusion in team support (1986). Following the lead of the marching band in cheers or clapping creates a safer decision of support inclusion and involves less risk of crowd exclusion than starting a chant as an individual.

Sports Fandom

When individuals describe a sport fan or sport spectator, qualifying characteristics can vary. Some sport fans can be described as enthusiastic team supporters who positively participate in historically respected aspects of modern society (Wann, 2001). Other sports fans can be described as negative contributors to society through participation in aggressive or violent outbursts, enduring consequences related to sports-related gambling, and living with distraction from other aspects of life due to game viewing dedication either in person or on the television (2001). The noun *fan,* meaning "enthusiast," emerged from the mid-16th century English *fanatic*; the word *fanatic* stems from the Latin *fanaticus* "of or relating to a temple" (Fanatic, n.d.). By the mid seventeenth century, the adjective described behavior or speech that might result from possession by a god or demon, hence the earliest sense of the noun "excessively enthusiastic, especially about religious matters" (n.d.).

Football fandom is one particular type of crowd that researchers continue to investigate. Researchers have observed similar behavior between football fans and

religious followers, specifically in how they loyally supported their team and believed their team had a superior ranking amongst others (Millward & Poulton, 2014). "A popular theory amongst social scientists is that sport provided a socially accepted means of releasing accumulated aggressive tension that otherwise would be expressed in antisocial behavior" (Kutcher, 1983, p.37). Even though this theory pointed to sports as psychological events, Kutcher looked for answers in other theories that offered an explanation of general crowd behavior; "that is sport must be considered a social event" (p.37).

The collective spirit of sports crowds is strengthened through the communal support for the team performed through game-day traditions, including unison chants (Millward & Poulton, 2014). Chanting offers a way for sport crowds to collectively cheer on their team and strengthen their message for winning. Chants can be started through a singular fan in the stands but, due to the lack of collective response, can fizzle out before the whole stadium has an opportunity to participate. On the other hand, if a large collective of fans started a chant in unison, the chant had a greater chance of being replicated and supported throughout the stadium (2014). Stemming from this knowledge of sports crowd behavior, future research could investigate if a university marching band could represent a large collective of fans and act to influence the football crowd through the use of chants.

Football and Marching Bands

Participating in football related events has identified as a source of national identity, social relations, and social practices (Lindquist, 2006). In particular, Lindquist cites the Ohio State University [OSU] Marching Band as guiding fans in endorsing

American traditions and university camaraderie (2006). Lindquist lists the OSU Marching Band as a source for instituting national traditions and local pride through shared cultural features of the half-time show and game day activites (2006). Lindquist (2006) states:

> The much-anticipated and ritually structured performances of The Ohio State University Marching Band guide fans in endorsing efficient skill, physical strength, inventive achievement, and coordinated effort – aspects of national ideologies that are expressed both in football play and in this band's image and actions. (p.446)

By participating in game-day events, people embrace official emblems and invest their own personas in the day's events (2006). Central to this experience is the marching band's role of bridging the camaraderie from the pre-game events to game time clamor (2006). "Together actions on the field, among the spectators, and by the band constitute a larger community contest, a drama that works through layers of relations and emphasizes particular narratives" (2006, p. 448). At Ohio State University, the marching band is considered a guide to audience participation and an entity that "stimulates team play" throughout the game (2006, p.466). Over the years, the OSU Marching Band has developed a pre-game event called the "skull sessions" by preparing spectators in physical and emotional game day support (2006, p.468). Preparations happen through rhythmic drumming, clapping, and playing highly recognized anthems (2006). Over the decades, these sessions have turned into pep rallies that attract up to 10,000 audience members and serve as a rehearsal for the crowd, "since the musicians and audience together practice the ritual that will take place later on the field" (2006, p.469). In effect,

the marching band has developed an understudy of game day spectators that increase the supportive drama of the football competition (2006). As the OSU Marching Band opens the football game with rehearsed and expected traditions, the audience is influenced to participate in the event even before the football team appears on the field (2006). The band finishes the game date opening with multiple plays of the school fight song and turns the spectators attention to the athletes as they enter the field (2006). The OSU Marching Band engagement in football game day traditions serves as an example for future research in how effective a university marching band could influence football crowd behavior.

Music employed to lead a crowd is not only seen in the football crowd/marching band relationship. Music has also been found to influence crowds, historically at political rallies (Kincheloe, 1978). In an 1840 political rally in Tennessee, it was noted that the crowd was "linked together not by reason but by emotion; and the successful manipulator will seek to generate that emotion." (Kincheloe, 1978, p.158). The crowd in this instance was identified as a group of people who act and react collectively, not a group of people in a common space, thinking individually (1978). Along with other methods of crowd manipulation, "thousands of religious and political converts were procured through the use of music and group singing" (1978, p.168). From this observation, political leaders were known to encourage singing through political campaigns because the emotional impact of the music sung by the crowd was seen as "doing more good than anything else" (p.168). Political rally leaders were known to print and publish the words to campaign songs in local newspapers to aid the rally crowds in singing (1978). Singing societies would be established along the campaign trail to be present at political rallies in order to

guide and lead the crowd in singing (1978). Therefore, the concept of university marching bands leading chants, cheers, and songs at football games could be seen as a descending from former uses of music as crowd manipulation in nineteenth century American political rallies.

While starting chants is one example of how the marching band could influence the behavior of a football crowd, the music that marching bands play during football games contributes to the spectator sport. The music played by the marching band often has "an immediate and visible effect on those attending" the game (Vavasour, 2011, p.163). Kutcher (1983) points out that the sporting event experience must be considered a social event with the game central to the experience, but acting as only one part of the whole experience. While music remains a large component of the whole sporting event experience, many sporting events such as the Olympic Games, World Cups, and Super Bowls include and showcase lavish musical aspects (McLeod, 2006). Marketing teams invest greatly in creating a sporting event that is entertaining and produces the spectator's maximal arousal through cheers, cheerleaders, message boards, fireworks, and music (Wann, 2001). The communal sharing of football halftime shows and unison crowd chanting directly reinforces a collective expression that marketers of sporting events could seek to exploit through music and marching bands (2006). Upon general observation in this arena, music, particularly from the marching band, could have the potential to engage, entertain, and influence the crowd. Moreover, "the singing, dancing, and cheering of the sporting carnival offers every spectator the chance to be a part of the action, whether their sporting days are long gone or never were" (Vavasour, 2011, p.174). If attending sporting events is an escape from current reality and a celebration of

competition, then the selection of music heard is an integral part of creating an enthusiastic atmosphere for the crowd (Vavasour, 2011). The question remains how music influences human behavior and if there are elements of music that influence behaviors independently from one another.

Elements of Music Researched

In a review of research on music and marketing, Bruner surmised that although research was conducted on the effects of music on consumer behavior, rarely were the elements of music viewed independently amongst the investigations (1990). Bruner stated, "Although it has been long accepted that music affects human beings in various ways, only recently have researchers attempted to explore the presumed relationships empirically in market research" (1990, p.102). Even though some researchers made attempts to study the main effects of music components (e.g. tempo, mode, texture), little research exists on the individual interaction of these musical components (1990). Bruner stated that music was an effective means for communicating nonverbally and triggering mood; moreover, responses to music should be considered through the interaction of both learning environment and human nature (1990).

Researchers Kellaris and Kent (1991) explored how two independent musical components, tempo and modality, effected listener's responses to music. Volunteers (n = 180) were recruited from a class at the University of Cincinnati an agreement to receive course credit for participating in a "music study" (1991, p.244). In the first experiment, participants arrived at the lab, listened to a randomly assigned audiocassette tape, and were given a questionnaire (1991). Analysis of the questionnaire revealed that the music in major mode was generally signified as being more appealing than music in the minor

mode (1991). Another result was that the moderate tempo was evaluated as more appealing than slower or faster tempi except in the case of minor or atonal music, faster tempi was rated as more appealing (1991). In Experiment 2, students (n = 162) were also recruited from a largely enrolled class, given course credit, and kept unaware of the fundamental purpose of the study (1991). The second experiment included a broader range of both tempi as well as atonal music in the listening samples (1991). As in Experiment 1, the effect of tempo was positive, meaning that the faster music was designated as being more arousing (1991). The modality effect in both experiments concluded that the music played in the major key was seen as least arousing overall; however, in Experiment 2, "the minor modalities produced higher arousal ratings than atonal music" (1991, p.246). Kellaris and Kent concluded that a consistent pattern of effects was found across both experiments, whereas tempo was found to have positive main effects on music's pleasure experience and behavioral intent, modality also influenced arousal and intent with atonal music producing the least positive responses (1991).

Marching Band Participation

Where the components of music have been researched for their effects on consumer behavior and atmospheric influence, music educators have researched the motivation of music makers, particularly in university marching band participants. Madsen, Plack, and Dunnigan, (2007) conducted a case study at a large public university and found that the motivation of many of the marching band members to attend that particular university was first to the reputation of a specific department, second for the opportunity to be in the marching band, and third by the reputation of the university. In a

separate mixed methods study of marching band intragroup beliefs, students commented on the marching band's role in creating game day spirit and school pride by attracting fans to the game through cheering, playing familiar tunes in the stands, or in the halftime show (Matthews, 2017). In Matthews' (2017) study, one student reported her view of supporting the team by saying:

> We [the marching band] are their number one fans…we were starting those cheers, because we were so loud, they [the student section] were so loud. I've heard from several football players that's huge to them. They really appreciate when we get people into it and when we are into it. (p.191)

Band members participating in Matthews (2017) study commented on how the marching band produced school pride and contributed to overall collegiate atmosphere at games. Band members are not the only ones who believe that they contribute to the game. In an investigation on school athletics and fan aggression, Bryan and Horton (1976) mentioned, "most writers do seem to assume that a crowd exerts an impact upon the players". Another author also pointed to the parallels between aggressive behaviors from the spectators to the athletes (Alderman, 1974). From the Alderman (1974) perspective, "athletes who are aggressive in sports are rewarded, praised and reinforced for aggression; quite simply, this serves to make them more aggressive" (Bryan, 1976, p.4).

With the growing knowledge that spectators in the crowd could influence the players of the game, members of a university marching band could feel a strong sense of encouragement for participating in the ensemble. Students who play in the marching band state a gained "sense of self-respect and achievement because they are able to participate in something that involved teamwork, projected a positive image, and

appealed to the community" (Heselton, 2011, p.24). Bohannon (2004) stated entertainment as one of the most obvious purposes of the college marching band. Bohannon's research study was conducted in order to offer college marching bands a purpose other than entertainment, specifically, influence (2004). Bohannon believes that the social bonds formed between members was one of the main reasons that marching band members continued to return to the marching band each year (2004). Agreeing with Bohannon, Heselton (2011) states,

> Participation in a marching band can help create a strong sense of loyalty and encourage ethical behavior in students and can lead them to understand the importance of an aesthetic education. Marching bands captivates many students by giving them a sense of belonging and identity. (p.24)

American sociologist Herbert Blumer would also agree with this sentiment. Blumer (1951) stated "esprit de corps is the sense of belonging that people have to the movement and provides rapport among members that is crucial to mobilizations" (p.206). This feeling of pride by participating in the group also acts as a feeling of comradeship (1951). Blumer (1951) states three main ways this solidarity is created:

> First, through the identification of an outgroup – usually those individuals or the institutions that the movement forms against; second, through informal fellowships between members of the movement, facilitate by group singing, dancing, picnics, joking, having fun, and informal conversation; and third, ceremonial behavior – particularly large assemblages – in the form of mass meetings, rallies, parades, huge demonstrations and commemorative ceremonies. (p.206-207)

With this understanding of fan spectatorship as well as marching band participation, membership in the football crowd could include participating in the group chants, cheers, behaviors, and beliefs as representations of a collective commemorative tradition. Moreover, investigations of the football crowd behavior could benefit from an assessment of the collective group behaviors. "Theoreticians and researchers in the area of group dynamics have frequently pointed out that the behavior of a group cannot be directly predicted from a simple summation of the behaviors of its individual members" (Hodges, 1992, p.49). Even though it seems probably that self and collective action share common properties, the behaviors involve different psychological processes (1992).

Marching Band Influence

An investigation into the influence of university marching bands on football fan crowd behavior could reveal possible relationships between the marching band musical prompts and the football fan behavior. For example, research could consider football fan collective behavioral actions associated with the playing of the college "fight" songs (McLeod, 2006). "A strong element of the appeal common to all of these sports anthems is that they feature memorable and easily sung choruses in which fans can readily participate" (McLeod, 2006, p.541). The carnival atmosphere of a football game with the ebbs and flows of crowd participation is ripe for investigating musical influence on football crowd behavior.

Studies on the influence of music across various environments are plentiful. Even though there is a long history of playing music during sporting events, (Vavasour, 2011) there is still a need for research on the influence of the university marching band beyond its historical and traditional importance. To date, there are no studies on the influence of

marching band music on football crowd behavior. Therefore, the purpose of this study is to investigate the possible relationship of influence between university marching band musical prompts and university football fan behavioral response.

The following research questions guided this investigation:

1. Do the students at a university football game respond to the musical prompts ($N = 11$) of the university marching band?
2. What are the behavioral responses of university students to the university marching band musical prompts ($N = 11$)?
3. How often are behavioral responses observed from the university students to the university marching band music prompts ($N = 11$)?

CHAPTER III

METHOD

Participants

Participants for this study were university football game attendees sitting in the student section of the football stadium of a Pacific Northwest University. Number of participants was not recorded each game; however, the number of tickets (N = 3,948) for the student section remained the same for all conference games included in this study. No individual identification or recruitment of participants was collected or conducted. The student section ticket eligibility requirements as determined by the University's athletic department is presented on the university's athletic website (See Appendix 1).

Participants in this study were defined as those football game attendees seated in the university student section that gained entrance by obtaining a student section ticket ($N = 3,948$). Participation in this study was self-selected and participants were not named or identified. Participants were only included through their decision to be seated in the designated student section (sections four through eight and section two) at home university football games. Table 1 shows the university football game schedule and attendance.

Materials and Equipment

I was granted football game day access to the open air Press Platform above the university football stadium club. Access was granted for research purposes through permission given by the university's athletic department. A press pass was provided in order to video record the university student section during football games from the press platform location. The press pass allowed authorization to bring video recording

equipment into the university football stadium during game day events. Figure 1 shows the location of the Press Platform at the university football stadium. Video recording equipment was checked out from the Center for Media and Educational Technologies at the university.

Table 1

University Football Game Schedule, Football Game Outcome, Student Section Attendance, Overall Game Attendance

Games Investigated	Game Date	Game Final Score	Student Section Attendance	Total Game Attendance
Game 1	9/30/2017	W (45-24)	3,948	55,707
Game 2	10/7/2017	L (10-33)	3,948	56,653
Game 3	10/28/2017	W (41-20)	3,948	56,154
Game 4	11/18/2017	W (48-28)	3,948	51,799
Game 5	11/25/2017	W (69-10)	3,948	57,475

Figure 1. University Football Stadium where Principal Investigator positioned on the Press Platform

Video recordings were taken on a Canon Vixia HF G20 Camcorder and Manfrotto Tripod Lite. Video recordings were recorded on a PNY Elite Performance 64 GB SDXC card and saved on a MacBook Pro Laptop.

Music Prompts

The university marching band has designated music prompts ($N = 11$) that are played according to American football game advances for the defense and the offense. In American football, the football team is divided into two sides. The offense is the side in which the players have possession of the ball. It is their job to advance the ball towards the opponent's end zone to score points. The quarterback is a player on the offense side and usually lines up behind the center, calls the signals, and directs the offensive play of the team. The running back is a player on the offense side and carries the ball on running plays. The defense is the side that begins a play from scrimmage not in possession of the ball. The objective of the defensive team is to prevent the other team from scoring. Table 2 shows the university marching band music prompts with their corresponding football game plays. While these focus prompts ($N = 11$) are not the only music prompts played during home football games at this university, these prompts were determined as the most appropriate content for this investigation. These prompts were introduced to students at the pre-season pep rally.

The music prompts are taught to students at university pep rallies during the football pre-season. Pep rallies are not required events, but are enthusiastically attended by almost all incoming freshmen. The incoming freshman class for the year of this investigation totaled 3,863 new students. It is estimated that there were between 3000 and 3,400 freshman attending the pep rally for the football season included in this investigation. During the pep rallies, the full university marching band plays and introduces the music prompts with their football game assignment. Some of the musical

prompts are taught with a verbal or kinesthetic response that is intended to accompany or follow the prompt.

Table 2

University marching band music prompts ($N = 11$) *with descriptions.*

Prompt Number	Title of Music	Football Game Assignment
1	University Fight Song	Touchdown
2	Destruction Theme	Offense enters the field
3	Gungan Victory Theme	Offense first down
4	300 Violin Orchestra	Offense quarterback theme
5	Iron Man Theme	Offense running back theme
6	Destruction defense Theme	Defense enters the field
7	School's Out Theme	Defense third down
8	Menace Theme	Defense fourth down
9	*Dr. Who/Hey Song*	General Use
10	*Coming Home*	General Use
11	Muster	Defense second down

Music prompts ($N = 11$) are played at pep rallies while the university marching band announcer gives the students information of the meaning and function of each music prompt. A pep rally is an event before a school sports event that is meant to get students and fans excited and to encourage the team to win. Students are instructed to identify certain music prompts with offense and defense football advances. For the

purposes of this investigation the prompts are distinguished into three main categories by function: offense plays, defense plays, and general use songs.

Design

The design of this study is an observational, descriptive research study. I attended one season of regularly scheduled home football games. Positioned above the football stadium on the press platform, I video recorded the university student section (sections four through eight and section two) during the first half of the game only. Video recording ceased at the half-time activities. The marching band starts to leave the stadium seating and enters the American football field with approximately 4 minutes left on the clock in the second quarter of the game. American collegiate football games are 60 minutes long, divided into four quarters of 15 minutes each. The clock is stopped frequently; therefore a typical university game could exceed three hours in duration. The referee controls the game clock and stops the clock after any incomplete pass or any play that ends out of bounds.

This investigation sought to examine the extent to which a phenomenon was occurring. This study was conducted by quantitative and descriptive data collection from video recorded observations of a university student's behavioral responses to the university marching band's music prompts ($N = 11$) at home university football games ($n = 5$).

Procedures

First, I discussed this study with the Director of Athletic Bands at the university. In an interview, the Director of Athletic Bands described the specific music prompts that are used during the football games and taught at pep rallies.

Next, I submitted a proposal for approval to conduct research through the Research Compliance Services at the university. This research was reviewed and it was determined that the proposed activities do not meet the definition of human subjects research, and therefore do not require International Review Board review. Research Compliance Services issued this research study with Protocol #09112017.011.

A list of music prompts ($N = 11$) described by the Director of Athletic Bands was determined to be the focal music prompts in this study. I arrived at home football games and set up the video recording equipment on the press platform. Figure 1 shows the location of the press platform. Locations for setting up the video camera were available on a first come, first serve basis. The space on the platform was also available to media broadcasters for video recording game footage. The video recording was conducting from the middle area of the press platform. The video recordings were centered on the student sections (sections four through eight and section two) of the football stadium and included the university marching band. The university marching band is seated in the front 22 rows of section two. The student sections were pre-determined by the athletic department and were the same sections for all home games during this investigation.

From the video recordings, the number of behavioral responses (kinesthetic and/or oral) was tallied for each music prompt (N =11). Inter-Observer Reliability was established through an external reliability check of 40% of the video recordings. The external observer observed 67 prompts (40% of the total data). There were 66 agreements on the 67 prompts observed, which is a 99% reliability (R=*.99*).

CHAPTER IV

RESULTS

The purpose of this study is to investigate the possible relationship of influence between a university marching band music prompts and a university football game crowd behavioral response.

Research Question 1

Do the students at a university football game respond to the music prompts (N = 11) of the university marching band? Table 3 shows the observations of student behavioral responses to music prompts and percentage of behavioral responses to music prompts in Game 1. Table 4 shows the observations of student behavioral responses to music prompts and percentage of behavioral responses to music prompts in Game 2. Table 5 shows the observations of student behavioral responses to music prompts and percentage of behavioral responses to music prompts in Game 3. Table 6 shows the observations of student behavioral responses to music prompts and percentage of behavioral responses to music prompts in Game 4. Table 7 shows the observations of student behavioral responses to music prompts and percentage of behavioral responses to music prompts in Game 5.

Table 3.

Game 1 music prompts with number of behavioral responses and percentage of behavioral responses to music prompts

Prompt Number	Number of Music Prompts	Number of Behavior Responses to Music Prompts	Percentage of Behavioral Responses to Music Prompts
1	6	6	100%
2	1	0	0%
3	4	0	0%
4	0	0	0%
5	2	2	100%
6	6	0	0%
7	6	6	100%
8	6	6	100%
9	0	0	0%
10	0	0	0%
11	4	0	0%
Total	35	20	57%

Table 4.

Game 2 music prompts with number of behavioral responses and percentage of behavioral responses to music prompts

Prompt Number	Number of Music Prompts	Number of Behavior Responses to Music Prompts	Percentage of Behavioral Responses to Music Prompts
1	4	4	100%
2	4	0	0%
3	1	0	0%
4	0	0	0%
5	2	2	100%
6	8	0	0%
7	4	4	100%
8	4	4	100%
9	0	0	0%
10	0	0	0%
11	5	0	0%
Total	32	14	44%

Table 5.

Game 3 music prompts with number of behavioral responses and percentage of behavioral responses to music prompts

Prompt Number	Number of Music Prompts	Number of Behavior Responses to Music Prompts	Percentage of Behavioral Responses to Music Prompts
1	6	5	83%
2	3	0	0%
3	7	0	0%
4	0	0	0%
5	2	2	100%
6	9	0	0%
7	6	6	100%
8	4	3	75%
9	1	1	100%
10	0	0	0%
11	8	1	13%
Total	46	18	39%

Table 6.

Game 4 music prompts with number of behavioral responses and percentage of behavioral responses to music prompts

Prompt Number	Number of Music Prompts	Number of Behavior Responses to Music Prompts	Percentage of Behavioral Responses to Music Prompts
1	7	7	100%
2	3	0	0%
3	2	0	0%
4	0	0	0%
5	4	4	100%
6	9	0	0%
7	8	8	100%
8	2	1	50%
9	0	0	0%
10	0	0	0%
11	6	0	0%
Total	41	20	49%

Table 7.

Game 5 music prompts with number of behavioral responses and percentage of behavioral responses to music prompts

Prompt Number	Number of Music Prompts	Number of Behavior Responses to Music Prompts	Percentage of Behavioral Responses to Music Prompts
1	15	15	100%
2	0	0	0%
3	7	0	0%
4	0	0	0%
5	3	3	100%
6	9	0	0%
7	5	5	100%
8	5	4	80%
9	1	1	100%
10	0	0	0%
11	3	0	0%
Total	48	28	58%

Research Question 2

What are the behavioral responses of university students to the university marching band music prompts ($N = 11$)? Table 8 below shows the descriptions of student behavioral responses to music prompts. These descriptions were identified as physical

responses elicited by the music prompts. Descriptions of physical responses were collected from observations of all games in this investigation.

Table 8.

Descriptions of behavioral responses to music prompts, listed by prompt

Music Prompt Number	Descriptions of behavioral response observed
1	Arm swing/Clapping
	Arm waving
	Clapping with music's tempo
	Clapping with arm pump
	Clapping in sync with music prompt
	Clapping
	Arm pump at beginning
2	*(no response observed)*
3	*(no response observed)*
4	*(no response observed)*
5	Arm sway
	Body/arm swaying
	Waving arms back and forth
	Arm swing
6	*(no response observed)*
7	Arm chop

8	Students "Throw the O"
	Arm sway
	Arm/body sway
	Body sway/Arm swing
	Arm sway/Arm chop at the end
9	Arm slide and clapping with music
	Arm pump and clapping
10	*(no response observed)*
11	Arm Sway
	Crowd cheering/shouting at the same pitch as last note of piece
	An ""O"" was raised in the crowd
	Crowd cheers to match the final note of this prompt

Research Question 3

How often are behavioral responses observed from the university students to the university marching band music prompts ($N = 11$)? Table 9 shows the total number of occurrences a behavioral response was observed to musical prompt 1.

Table 9.

Total number of occurrences a behavioral response was observed to musical prompt 1

	Number of Music Prompt 1	Number of Behavior Responses to Music Prompt 1	Percentage of Behavioral Responses to Music Prompt 1
Game 1	6	6	100%
Game 2	4	4	100%
Game 3	6	5	83%
Game 4	7	7	100%
Game 5	15	15	100%
Total	38	37	97%

Table 10 shows the total number of occurrences a behavioral response was observed to musical prompt 2. Table 11 shows the total number of occurrences a behavioral response was observed to musical prompt 3. Table 12 shows the total number of occurrences a behavioral response was observed to musical prompt 4. Table 13 shows the total number of occurrences a behavioral response was observed to musical prompt 5. Table 14 shows the total number of occurrences a behavioral response was observed to musical prompt 6. Table 15 shows the total number of occurrences a behavioral response was observed to musical prompt 7. Table 16 shows the total number of occurrences a behavioral response was observed to musical prompt 8. Table 17 shows the total number of occurrences a behavioral response was observed to musical prompt 9. Table 18 shows the total number of occurrences a behavioral response was observed to musical prompt 10.

Table 10.

Total number of occurrences a behavioral response was observed to musical prompt 2

	Number of Music Prompt 2	Number of Behavior Responses to Music Prompt 2	Percentage of Behavioral Responses to Music Prompt 2
Game 1	1	0	0%
Game 2	4	0	0%
Game 3	3	0	0%
Game 4	3	0	0%
Game 5	0	0	0%
Total	11	0	0%

Table 11.

Total number of occurrences a behavioral response was observed to musical prompt 3

	Number of Music Prompt 3	Number of Behavior Responses to Music Prompt 3	Percentage of Behavioral Responses to Music Prompt 3
Game 1	4	0	0%
Game 2	1	0	0%
Game 3	7	0	0%
Game 4	2	0	0%
Game 5	7	0	0%
Total	21	0	0%

Table 12.

Total number of occurrences a behavioral response was observed to musical prompt 4

	Number of Music Prompt 4	Number of Behavior Responses to Music Prompt 4	Percentage of Behavioral Responses to Music Prompt 4
Game 1	0	0	0%
Game 2	0	0	0%
Game 3	0	0	0%
Game 4	0	0	0%
Game 5	0	0	0%
Total	0	0	0%

Table 13.

Total number of occurrences a behavioral response was observed to musical prompt 5

	Number of Music Prompt 5	Number of Behavior Responses to Music Prompt 5	Percentage of Behavioral Responses to Music Prompt 5
Game 1	2	2	100%
Game 2	2	2	100%
Game 3	2	2	100%
Game 4	4	4	100%
Game 5	3	3	100%
Total	13	13	100%

Table 14.

Total number of occurrences a behavioral response was observed to musical prompt 6

	Number of Music Prompt 6	Number of Behavior Responses to Music Prompt 6	Percentage of Behavioral Responses to Music Prompt 6
Game 1	6	0	0%
Game 2	8	0	0%
Game 3	9	0	0%
Game 4	9	9	0%
Game 5	9	9	0%
Total	41	0	0%

Table 15.

Total number of occurrences a behavioral response was observed to musical prompt 7

	Number of Music Prompt 7	Number of Behavior Responses to Music Prompt 7	Percentage of Behavioral Responses to Music Prompt 7
Game 1	6	6	100%
Game 2	4	4	100%
Game 3	6	6	100%
Game 4	8	8	100%
Game 5	5	5	100%
Total	29	29	100%

Table 16.

Total number of occurrences a behavioral response was observed to musical prompt 8

	Number of Music Prompt 8	Number of Behavior Responses to Music Prompt 8	Percentage of Behavioral Responses to Music Prompt 8
Game 1	6	6	100%
Game 2	4	4	100%
Game 3	4	3	75%
Game 4	2	1	50%
Game 5	5	4	80%
Total	21	18	86%

Table 17.

Total number of occurrences a behavioral response was observed to musical prompt 9

	Number of Music Prompt 9	Number of Behavior Responses to Music Prompt 9	Percentage of Behavioral Responses to Music Prompt 9
Game 1	0	0	0%
Game 2	0	0	0%
Game 3	1	1	100%
Game 4	0	0	0%
Game 5	1	1	100%
Total	2	2	100%

Table 18.

Total number of occurrences a behavioral response was observed to musical prompt 10

	Number of Music Prompt 10	Number of Behavior Responses to Music Prompt 10	Percentage of Behavioral Responses to Music Prompt 10
Game 1	0	0	0%
Game 2	0	0	0%
Game 3	0	0	0%
Game 4	0	0	0%
Game 5	0	0	0%
Total	0	0	0%

Table 19.

Total number of occurrences a behavioral response was observed to musical prompt 11

	Number of Music Prompt 11	Number of Behavior Responses to Music Prompt 11	Percentage of Behavioral Responses to Music Prompt 11
Game 1	4	0	0%
Game 2	5	0	0%
Game 3	8	1	13%
Game 4	6	0	0%
Game 5	3	0	0%
Total	26	1	4%

Table 19 shows the total number of occurrences a behavioral response was observed to musical prompt 11. Table 20 shows the total number of occurrences a behavioral response was observed to uncategorized music prompts.

Table 20.

Total number of occurrences a behavioral response was observed to uncategorized music prompts

	Number of Uncategorized Music Prompts	Number of Behavior Responses to Uncategorized Music Prompts	Percentage of Behavioral Responses to Uncategorized Music Prompts
Game 1	5	3	60%
Game 2	8	2	25%
Game 3	6	3	50%
Game 4	11	1	9%
Game 5	7	2	29%
Total	37	11	30%

Figure 2 shows the total number of occurrences a behavioral response was observed to music prompts ($N = 11$) during all games in this investigation ($n = 5$). The total number of times a music prompt ($N = 11$) was played in this investigation was 202 (n =202) times. The total number of times a music prompt elicited a behavioral response was 100 (n =100) times.

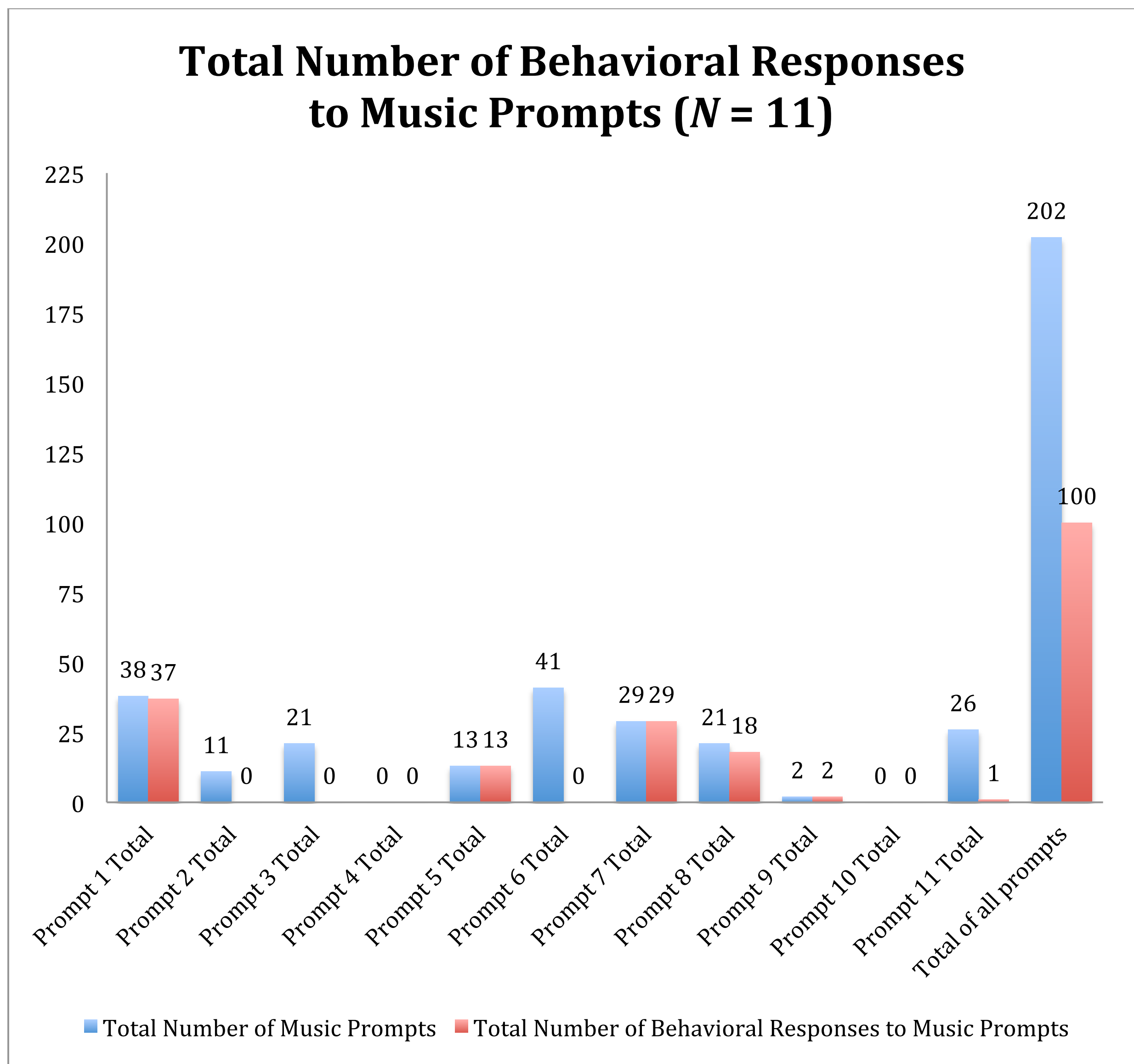

Figure 2. Total number of observed behavioral responses, listed by music prompt.

Figure 3 shows the total percentage of occurrences a behavioral response was observed to music prompts (*N* = 11) during all games in this investigation (*n* = 5). The total number of music prompts in this investigation (*n* =202) elicited a behavioral response of 50% (*n* =100).

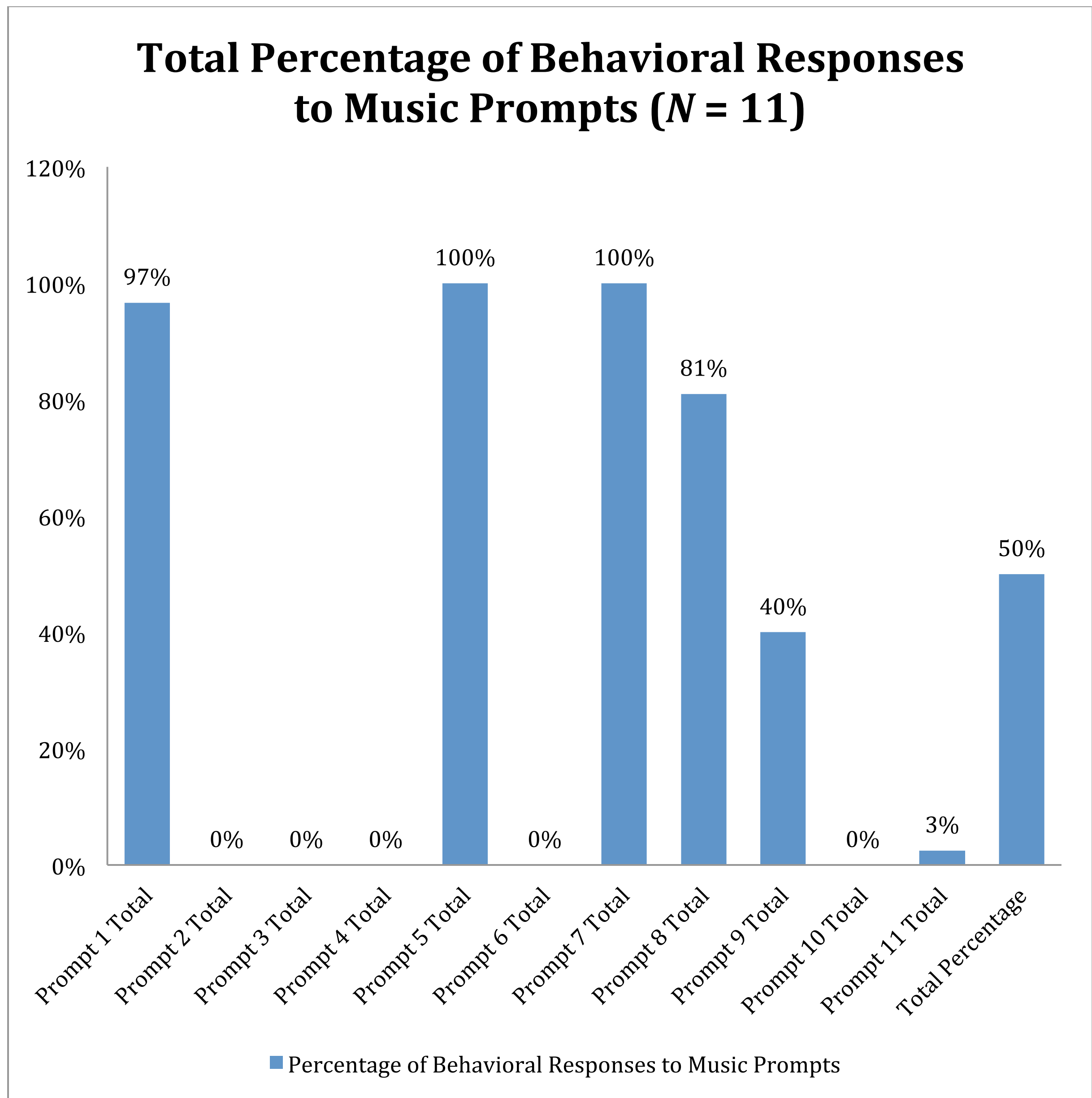

Figure 3. Total percentage of observed behavioral responses, listed by music prompt

CHAPTER V

DISCUSSION

University student section behavioral responses to the university marching band music prompts varied greatly. Findings indicated that music prompts 5 (n = 13) and 7 (n = 29) received 100% behavioral responses from the student section every time the marching band played them during this investigation. Findings also show that prompt 1 received 97% (n =37) behavioral responses from the student section and prompt 8 received 86% (n = 18) behavioral responses.

It is interesting to note that prompt 1 always elicited a clapping response. Along with the clapping response, prompt 1 also elicited an arm swing and arm chop response that corresponded with the rhythm of the prompt. Prompt 1 is the university fight song and was played ever time a touchdown was made. It is played immediately following the sound of foghorn that signals a home touchdown. Even though the student section is already standing and applauding after a touchdown, the applause observed turned into clapping with the beat of the fight song. Because the applause changed to clapping in tempo to match the music prompt, it was counted as a behavioral response to the music prompt. The one time that the clapping stayed a random applause (in Game 3) it was not counted as a behavioral response. However, immediately following the next touchdown in this game, the student section used arm swings, arm chops, and clapping along with the music prompt of the fight song. This one instance of the student section not following the clapping behavioral response could indicate that the applause was too loud for the student section to hear the fight song when played.

Even though prompt 5 elicited a 100% (n = 13) behavioral response from the student section, the kinesthetic response varied slightly at each prompt's playing. One description of the behavioral response is moving one hand back and forth in a semi-circle (9:00 – 3:00 on a clock face). Another description of the response to prompt 5 was an arm sway. Although prompt 5 always elicited a response (100%, n =13), it was one of the behavioral responses that did not have an exact definition. There was always a response, but it was not a unison movement like was observed in Prompt 7.

Interesting to note was that prompt 7 always (100%, n = 29) elicited an arm chop behavioral response. Prompt 7, "School's Out For Summer," was more distinguishable by the student section's response than the music prompt. While analyzing the video recordings, the student section behavioral response was always exact and substantial. Other than prompt 1 ("Fight Song"), prompt 7 had the most response from the crowd. While the other prompts elicited a kinesthetic behavioral response, prompt 7 always elicited a unison standing of the student section and arm chop. It was apparent that the student section knew that this music prompt had a kinesthetic response associated with it.

Prompt 8 elicited an 86% (n = 18) behavioral response in this investigation. The description of the behavioral responses varied from an arm sway, a body sway, swinging arms, and a hand chop. Even though the responses varied, there were a large percentage of responses to this prompt.

Prompt 9 "Dr. Who/Hey Song" elicited a behavioral response at a 100% (n = 2) rate. Even though prompt 9 was only played twice (n =2) during this investigation, once in game 3 and once in game 5, both times prompt 9 was played, it received a kinesthetic response of arm swinging and clapping with the beat.

Prompts 2, 3, 4, 6, and 10 never elicited a behavioral response to the music prompt. It is important to note that prompts 4 and 10 were never played during this investigation. Prompt 2 (*n* = 11) "Offense Destruction theme" was played, on average, two times per game in this investigation and did not elicit a kinesthetic response from the student section. Prompt 3 (*n* = 21) "Offense First Down Gungan Victory Theme" was played, on average, 4 times per game in this investigation and also did not elicit a kinesthetic response from the student section. Prompt 6 (*n* = 41) was the most played prompt in this investigation. However, prompt 6 never elicited a kinesthetic, behavioral response from the student section. With this prompt played 9 times per game, on average, it is interesting that it consistently had no observable effect on the behavior of the student section.

Prompt 4 (*n* =0) "300 Violin Orchestra" is an offense music prompt assigned to the starting quarterback. This offensive prompt was taught to students at the pep rally as the soundtrack music that was played when the starting quarterback makes a game advancement. Students attending the pep rally would have learned that when this music prompt was played, it indicated that the starting quarterback had accomplished advancement in the game. In this investigation, this prompt was never used. This prompt was assigned to that starting quarterback specifically and the backup quarterbacks were not re-assigned a music prompt. Even though it was introduced and assigned at the beginning of the football season, the starting quarterback was injured during the season's third game (Investigation Game 1). Therefore, it was purposefully not played during the time of this investigation, because the player that it was assigned to was not playing.

Prompt 10 (n =0) "Coming Home" was written by a singer/songwriter that is originally from the city in which this investigation took place. This song was not played during this investigation because it is only played at the end of the football games. Since this investigation only video recorded observations through the first half of the game, this music prompt was not played during this investigation. It could be predicted that if this song had been played during this investigation, it could have received a high behavioral response rate. Students are taught this song at the pep rally and told of its history and specific association with the university. Even though this investigation did not video record the students' behavior after half time, field notes of behavior observed during the second half of the game indicated that music prompt 10 "Coming Home" received a large behavioral and oral response from the student section when it was played at the end of the game. Students were observed singing along with the song as the band played as well as swaying to the tempo of the music. From this observation recorded in the field notes, it could be beneficial to replicate this study and include observation of not only the first half of the game, but the entire game.

Results from the video recordings and field notes made prompt 11 (n =26) a very interesting music prompt. When video recording for this investigation, prompt 11 elicited a verbal response 100% (n = 26) of the time according to the field notes. Prompt 11 "Muster" is a dissonant music prompt that finishes with a chord held for an extended period of time while the members of the marching band lean toward each other in the direction of the student sections. When observing from the Press Platform, I observed the crowd greatly increase in volume and their vocal sounds match the pitches in the last chord of prompt 11. This oral response was noted many times in the field notes for this

investigation. However, on the video recordings, the change in volume is not recognizable. It is an instance of where a video recording of the student's response needed to be measured in more ways that just a visual recording. However, it could be very difficult to measure the decibel levels of any specific section in the football stadium during a game. Therefore, measuring this occurrence could pose particular challenges for any future research. Unfortunately, prompt 11 was observed in this investigation as having elicited a very small (3% or n =1) behavioral response. However, from the field notes, this music prompt was a fascinating observation in this investigation.

Observing the immediate response of certain prompts (prompt 1, 5, 7) and the absence of response of other prompts (prompts 2, 3, 6) leads to a discussion of whether prompts that elicit an observable response should be considered with more value than prompts that do not elicit a behavioral response. Researchers have determined that the collective spirit of sports crowds is strengthened through the communal support for the team performed through game-day traditions (Millward & Poulton, 2014).

Chanting is seen as a collective action of the fans to cheer for their team and show their support for winning. Researchers have determined that because of the risk of group inclusion or exclusion, starting chants as an individual could demonstrate more than just fan support. The risk of an individual starting a chant at the wrong time in the game could indicate possible game ignorance. As John Philip Sousa, American Band Director, once said, “There is one thing that freezes a musician more than the deadliest physical cold, and that is the spiritual chill of an unresponsive audience!” Sousa referencing the musician's fear of an unresponsive audience can be transferred to the fear of an unresponsive crowd if an individual started a game chant. Therefore, the marching band

could act as a collective of game supporters that initiate chants in unison and have a likelihood of audience response. Researchers determined that if a large collective of fans started a chant in unison, the chant had a greater chance of being replicated and supported throughout the stadium (2014). Therefore, if marching band music prompts are intended to influence the behavior of the football fan crowd in participating in cheering during the game, then knowing the predictability of a behavioral response to the music prompt could be seen as valuable information for band directors to consider. If the purpose of the marching band music is to elicit a behavioral response, then it could be valuable for marching band directors to investigate whether or not the music prompts they are playing are actually eliciting a response from the football fan crowd.

Throughout this investigation, various music prompts were played and identified as uncategorized ($n = 37$). They were not music prompts that were assigned to specific football game advances and were not taught at the pre-season pep rally. Because this investigation sought only to observe the behavioral responses to the music prompts introduced at the pep rally, these uncategorized music prompts were not included in the total calculations of music prompts that elicited a behavioral response. However, they were noted and counted as a point of interest to the researcher.

Of the uncategorized prompts played during this investigation, a kinesthetic response was elicited 30% ($n = 11$) of the time. One of the uncategorized music prompts was a song that is often played at athletic events titled, “Louie, Louie”. This song was played once ($n = 5$) during every game of this investigation. Each time “Louie, Louie” was played, the student section showed an observable kinesthetic response. Behavioral responses to this music prompt included clapping, arm swings, body swaying, dancing,

and moving to the beat of the music. Had this prompt been included in this investigation as an individual prompt, "Louie, Louie" would have received a response rate of 100% (n = 5).

Another uncategorized music prompt was a recognizable popular song titled, "Crazy in Love". This song was played twice during this investigation (n =2). One occurrence when the song was played, there was observable kinesthetic response of dancing in the student section. However, the other time the song was played, there was no observable response. Even though it remained in the uncategorized category, this song's rate of eliciting a kinesthetic response was 50% (n =1).

Between the third and fourth quarters of football games at this university, the jumbotron video screen in the football stadium plays a music video of the song "Shout (You Make Me Wanna)" by Otis Day and the Knights. The playing of this song is a tradition at this university in which the entire stadium crowd stands, claps, and dances. During this investigation, the average overall attendance at the games (N = 5) was 55,558 people. Although only included in the field notes of this investigation, the behavioral and oral response from the entire football stadium appear as a phenomenon within itself. While attending a football game at this university, the researcher, seated in stadium, experienced the playing of "Shout (You Make Me Wanna)" by Otis Day and the Knights and found it to be a remarkable event. After sitting through the experience of an entire football stadium crowd responding to a musical prompt, the researcher developed the inquiry that led to this investigation.

Through an interview with the Director of Athletic Bands at this university, the history of "Shout (You Make Me Wanna)" by Otis Day and the Knights was revealed

(Wiltshire, 2018). In 1977, *National Lampoon's Animal House* was filmed in the local area and on the university's campus at the university in this investigation. One of the scenes in the movie included a house party where Otis Day and the Knights played the song, "Shout (You Make Me Wanna)." From this escapade, university students developed a fondness for the song that appeared in a movie filmed in and around the university's campus. Now, the university's athletic marketing department has invested in a music video made for home football games, in which prominent members of the current university's athletics can be seen dancing to the song played on the jumbrotron. The university's music video mimics the surroundings of the original *Animal House* party movie scene. Whether the university's investment of a personalized music video plays an influential role in the response of the football crowd is a phenomenon that has yet to be investigated. However, it is a university specific event that future research could investigate. Furthermore, investigations into the possibilities of other universities with similar music traditions that elicit a football crowd behavioral response could be interesting to explore. The power that one song can prompt a behavioral response from the entire football fan population could be seen as an exceptional occurrence to be further investigated. Future research on the history, learned behavior, and behavioral influence of university American football song traditions could yield fascinating findings. One question that could guide future research could be how to determine the length of time it takes for a song to become a tradition amongst university students at sporting events. The university population is a transient population that encourages students to remain active members of their alumni upon graduation. While the university population is ever changing, how have songs like "Coming Home" and "Shout (You Make Me Wanna)"

have remained consistent game customs through the decades at the university in this investigation?

Although this investigation did not control for this variable, another consideration in future investigations is whether a coach of the team favors the piece of music. In this university's case, there is one piece of music that was played multiple times per game by the stadium DJ. The song "Swag Surfin" by F.L.Y. (Fast Life Yungstaz) was requested by then head football coach. When the DJ played this song, the football team and student section swayed to the music. Interesting to note that although this prompt elicited a strong kinesthetic response, the response is exclusively in the student section. Even though this investigation focused on the student section, field notes showed that several music prompts elicited a kinesthetic response from a larger section of the stadium beyond the student section. However, field notes on the "Swag Surfin" behavioral response consistently noted that the rest of the stadium did not participate in an observable response. But within the student section, this DJ initiated music prompt elicited a highly observable response.

The music played at football games is often under the control of the university athletic marketing department as well as local and national broadcasting time requirements. The Director of Athletic Bands wears a wireless headset that has a direct communication line with the Director of Marketing. The Director of Marketing has the authority and ability to request certain music prompts from the marching band during the football games. Although the Director of Athletic Bands reveals that it does not happen very often (Wiltshire, 2018), the marching band does comply with requests to start and stop music prompts when directed from the headset. Because of these additional

variables that were not controlled for in this investigation, music prompts that were started but not completed or finished because they were cut off due to marketing, game play, or broadcasting time limitations were not included in the overall music prompt count. In order to be considered as a musical prompt in this investigation, the music prompt had to be played to its entirety. A count of music prompts that were started and cut off by other circumstances was not kept in this investigation.

Another variable that this investigation did not control for was the individual conducting the marching band. The Director of Athletic Bands had two graduate employees that assisted in conducting the marching band during football games. The conductor always wears the headset. Therefore, if a graduate employee is conducting, then they are wearing the headset and following any instructions directed at the marching band. Even though the conductor is the one who is deciding on which music prompts to play, this investigation did not consider this variable to effect the overall results. Because the Director of Athletic Bands was always present during the investigation and near the conductor, it was seen as a constant and consistent source of conducting the music prompts under investigation.

It is interesting to point out that during Game 5 of this investigation, the opposing team brought their university marching band to the football game. Although this posed a challenge for the university marching band under investigation because of the need to share playing time, it was not seen as a variable that could interfere to a great extent with this investigation. It was only an interesting observation that received several observational comments in the field notes. One field note made was whether the video recordings would be able to distinguish which band was playing a musical prompt.

However, when viewing the video footage, there was no challenge in determining which marching band was playing.

The university marching band investigated in this study performs a pre-game and half-time show. The athletic marketing department determines the length of time given to the university marching band for the pre-game show. During the pre-game show, the marching band sets up formations covering the football field to perform the national anthem, a specific arrangement of *America the Beautiful* including a “raising” of an American flag that covers 40 yards of the football field (Wiltshire, 2018). Often community music leaders and conductors are invited to conduct the marching band in performing the national anthem. After the pre-game show, the marching band is seated in the football stadium in section two near to the designated student sections. Once seated in the stadium, the marching band performs pieces of music to enhance the football fan atmosphere. Even though it could be assumed that the music prompts are intended to encourage the football crowd in supporting the home football team in cheers, verbal and kinesthetic support, it is not necessarily the motivation behind every music prompt.

During the interview with the Director of Athletic Bands, the idea of the marching as a soundtrack to the game was referenced (Wiltshire, 2018). Even though this investigation determined that some music prompts do elicit a behavior response from the university student section, there are not specific intended behavioral responses to many of the music prompts. In the preparation for the football season, the function of the marching band is more identified as a music identification of the various plays of the game. Whether they elicit a kinesthetic response from the football fan crowd seems to be a secondary purpose for this university’s music prompts.

In a study comparing perceived wait time with and without background music, researchers discovered that music could influence the perception of time by acting as a stimulant diversion from a monotonous environment (North & Hargreaves, 1999). This investigation replicated in a football game environment could produce interesting findings. An investigation of a football crowd's perception of wait time during a football game could determine whether the marching band could offer a distraction of time just like the background music in the North and Hargreaves experiment. If the results from the original investigation remained constant in the football game environment, marching band music prompts could influence perceived wait time between game pauses to be less. This perception from the football fans could result in an improved game experience for football fans and a new purpose for the marching band at football games.

During this investigation, some marching band prompts were observed to elicit a behavioral response from the student section. Knowing that the marching band can prompt a behavioral response from the football fan crowd is not a new discovery for the athletic events coordinators at this university. Although not previously researched, the marketing department at this university has already employed the use of marching band music prompts to redirect and end undesirable behavior happening from the football fan crowd. During an interview with the Director of Athletic Bands at this university, it was mentioned that one more than one occasion, the marketing department has asked for the marching band to play a specific music prompt in order to redirect unbroadcastable behavior. Music prompts such as "School's Out For Summer", "Fight Song", or "Louie, Louie" which receive consistent behavioral responses from the football fan crowd have previously been employed to redirect and distract fans from fighting, yelling crude

language, and showing disruptive behavior. When the marketing team has seen undesirable behavior in the television camera monitors during football game live broadcasts, they have instructed the marching band conductor (through the headset) to play certain prompts that consistently change the crowd's behavior and ultimately prevent unwanted behavior from being shown on live television. Although this investigation did not observe a music prompt being used under these circumstances, the Director of Athletic Bands did state that it is an occurrence that has happened within the past year and happens on a frequent basis (Wiltshire, 2018).

Although it could be seen as a confounding variable, the movements of the marching band members were not controlled in this investigation. Some of the kinesthetic responses that were observed in the student section mimicked the movements of sections of the marching band. The marching band has coordinated movements to many of their music prompts. Most of the kinesthetic responses seen in the student section behavior were occurring whilst the marching band members were playing their instruments. Movements like an arm chop or arm sway are movements that are not being modeled by marching band members. This investigation focused solely on the immediate, observable behavioral responses of the student section to the marching band's music prompt.

CHAPTER VI

CONCLUSION

This investigation focused on the university marching band music prompts played at home football games and whether there was a kinesthetic or oral response by the student section crowd when the specific prompt was performed. Some of the music prompts have a behavioral (kinesthetic and/or oral) response that the marching band intends the student section to do and/or say. Several of the music prompts are played with the intention of motivating the football crowd to cheer and/or actively participate in fanatic behavior. Some of the music prompts are played with the intention of identifying specific plays during the football game. This investigation found that certain music prompts elicited a significant behavioral response 100% of the time (prompts 5 and 7), other music prompts elicited a high behavioral response of 97% of the time (prompt 1). This investigation sought to determine if there were observable and measurable behavioral responses to the university marching band music prompts. The results present findings that certain music prompts did elicit a behavior response from the student section at a significant rate. Therefore, future studies that would replicate a measurement of the influence of the marching band music prompts on the behavior of American football fans could present interesting findings.

Researchers and music educators continue to debate the purpose of the university marching band. Generally, music educators leading a marching band have argued that the marching band provided a music education experience with the benefits of developing self-discipline, membership in an organization, and ensemble experience. Music educators conducting a more traditional concert band have argued that the marching band

instructed students with very minimal music knowledge and altered technical skills only applicable to marching and playing simultaneously. Although this argument can seem like petty banter from an outsider's perspective, the reality is that although marching bands are still considered music ensembles, many universities in America show a different belief through their budgetary allotment. The university where this investigation took place receives little to no funding from the university's school of music whereas other large music ensembles (orchestra, wind ensemble, choir) are fully funded by the school of music's budget. Therefore, the question can be asked if the marching band is considered a musically relevant opportunity within the school's structure.

A history of the marching band has shown that marching band directors have determined the marching band as the most viewed and exposed music ensemble of the school; therefore, it is the best marketing tool for schools to advertise for their music program. A case study by Madsen, Plack, and Dunnigan, conducted in 2007 found that the second overall motivation of many of the marching band members to attend that particular university was for the opportunity to be in the marching band. Therefore, the marching band could be seen as a major tool of recruiting students to attend a particular university. If this perspective were still valid, then why would the funding for the marching band not come solely from the school of music?

At the university level, marching bands function within the school of music and alongside the university's athletic department. Since the marching band is still a component of American university football games, the marching band acts within the regulations of the football leagues requirements during game play. Taking into account

the results of this investigation, future research could examine whether the number of music prompts that elicit a behavioral response from fans correlates with game score outcomes. Could an investigation be conducted that compared number of music prompts with behavioral responses to game scores? Moreover, future research could consider the comparison of music prompts that are played at multiple universities. In this investigation, music prompt 9 is a well-known, often played music piece at university football games across the country. Does the prompt "Dr. Who/Hey Song" always elicit the same behavior response at different universities? An investigation into the consistency of behavioral responses from this song alone could be interesting.

An investigation into how songs become institutional traditions and how game day traditions are passed down to new culture bearers could also be thought provoking. During this investigation, the researcher observed behavioral responses to music prompts by the student section. However, none of the behavioral responses observed were taught behavioral responses. At this university's pep rallies, the marching band introduces the music prompts as they apply to the elements of the football game. They are played for the pep rally attendees with the only response being that students understand that when they hear a specific prompt, it relates to a specific offense or defense moment in the game. However, with some music prompts eliciting a consistent behavioral response, it is wondered how these occurrences are being developed and learned by members of the football fan crowd. Are the musical prompts ever being taught to students or football fans? Or are the musical prompts just learned through culture bearers in the student section.

The results of this investigation can be transferred to settings outside of the football game stadium. This investigation sought to measure whether or not students were responding to a musical prompt with a behavior. The idea that music can prompt behavior is already found in music therapy settings and educational classroom settings. Elementary music classrooms around the country display creative and useful ways that a musical prompt can elicit a recognizable behavior. Classroom management techniques using musical prompts are a strategy that teachers in the general classroom also employ. In order to gain the whole class's attention, a teacher will clap a certain rhythmic pattern and students have been taught a response to that clapping prompt that stop the activity taking place to give focus to the teacher's instructions.

Some school cultures use school songs to build culture and teach values. Elementary schools that gather for whole school assemblies will often employ a school song in order to build camaraderie amongst students. The communal singing as a sign of solidarity was demonstrated through America's history of the civil rights movement. Songs such as "We Shall Overcome" became a unifying anthem for people to stand together for change in American's cultural practices of segregation. The use of music to unify a collective group can be found through multiple examples and settings. At the university in this investigation, the song "Coming Home" is played at the end of football games and elicits the students to join together in singing about their beloved state. Yet, how does a song become an established anthem for a particular cause or tradition? More specifically, how does a school fight song consistently elicit a behavioral response from students and alumni from the school? Is this a tradition that is taught exclusively or only learned through experience?

Learned behavior responses to sound prompts are found everyday in the American culture. At schools a bell rings to signal that it is time for students to leave the classroom and got to a new location. In car traffic, the car horn is available for any driver to use to signal the need for another driver's attention to the road. In an airplane, a specific sound is played to signal that passengers should fasten their seat belts. Members of our society learn these sound cues as signals to change behavior as regularly as they learn to walk and communicate. The American culture is brimming with examples of how sound cues are utilized to initiate a behavioral response.

As this investigation discovered, the marching band's musical prompts did elicit a behavioral response. However, the behaviors have not officially been taught to students. But when observing an entire student section waving their arm in the air in a chopping motion to the musical prompt "School's Out", one has to wonder where this tradition began.

Could it be that specific elements in a music prompt promote specific behaviors? A look at the tonality of music prompts could provide insight into the possibility of how certain tonalities elicit behavior responses. An investigation that compared major and minor tonality of music prompts with their behavior responses could provide more data for marching band directors to use when planning for the upcoming football season.

The university marching band descends from the military band traditions of motivating soldiers to march and civilians to show their support. With this historical background, the marching band has taken on the role of athletic crowd entertainer, school promoter, music education advocate and game cheer initiator. Within this investigation, the marching band was considered the initiator of the music prompt that elicited a

behavioral response from the crowd. It could be interesting to expand the lens of investigation to consider the football game as the initial prompt. In this perspective the marching band plays a musical response to the football game prompt. Then the football fan crowd demonstrates a behavioral response to the musical prompt that shows support of the initial football game occurrence. The marching band could be engaged in a circle of responses to the football game that contributes to the entertainment and influence of crowd participation at football games. In this perspective, if the marching band plays a musical prompt that elicits no response from the football crowd, then the circle of participation is broken.

Attending an American football game exposes attendees to various music prompts, many of them played due to university or game traditions. But a question remains as to why certain music prompts elicit certain behavioral responses. Does the tonality of the music prompt influence the probability of a response? Does the football game score affect the possibility of a response? Does the weather create a confounding variable that is uncontrollable? While there are many aspects to consider in this area of research, there is a need to further investigate the possibility that the university marching band is not only an institution of tradition at university football games, but a more impactful, wellspring of influence on football fan behavior.

APPENDIX

UNIVERSITY FOOTBALL STUDENT SECTION TICKET DISTRIBUTION

To be eligible to claim a student ticket you have to either:

Be registered for a fall course that incurs the Mandatory Incidental Fees (so self-support courses don't count) **OR** be a new Fall Admitted Student (who may not have registered yet). Students not paying the incidental fee will not be eligible for tickets. Student eligibility is loaded into the student ticket system the Thursday prior ticket-giveaway weekend. Students who register for fall classes AFTER the last upload will NOT be in the system in time to get tickets for that game.

Single Game Tickets

University student tickets for football games will be distributed via electronic ticketing. The system is structured on a "first come, first served" basis within each class; however tickets are weighted proportionality among the five classes. Students may log-in and request tickets on the Sunday prior to a home football game.

Status:	Credit Hours:
Freshman	0-44
Sophomore	45-89
Junior	90-134
Senior	135+
Graduate/Law	N/A

Class status will be determined by an update received from the Registrar's office the Thursday prior to each distribution.

Some additional notes

1. Students who have a staff benefit rate code do not pay the incidental fee, so are ineligible. 2. A dual-enrolled student at [area community college] is eligible if they have

been assessed the fee.

Ticket distribution

Football tickets are distributed on a game-by-game basis ONLINE ONLY to eligible students. For the Conference games, 3,948 tickets are available (sections four through eight and section two).

Game entry

Entry to FOOTBALL games is through the SOUTH GATE ONLY. The student entrance is located at the east end of the South Gate. This is the ONLY gate you may enter with your ID Card. When entering the gate, you MUST get the designated student hand stamp on the inside of your wrist. Your student ID and the hand stamp will be required for admittance to the designated student seating sections. It is YOUR responsibility to make sure that your ID is scanned at the gate.

No show football ticket policy

Students that pick up a ticket but do not show up for the game will forfeit opportunities to attend future contests. After a student misses one home football game he or she receives tickets for, the student forfeits tickets to the next home game. After missing two football games, the student forfeits tickets for the rest of the season.

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