Pandemonium: An Evolution of Steel Pans and its Place in Music Education

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PANDEMONIUM: AN EVOLUTION OF STEEL PANS AND ITS PLACE IN MUSIC EDUCATION

By

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Submitted in Partial Fulfillment of the Requirements for Graduation with Honors from the South Carolina Honors College

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Abstract

This thesis is aimed at researching the development, benefits, and drawbacks of steel drums, also known as steel pans and even more commonly known amongst Trinidadians as “pans.” Steel pans are relatively new instruments having come about in the last century. They are recognized instruments with immense cultural identity on the Caribbean islands of Trinidad and Tobago. Steel bands have been well established in the United States and around the globe with the help of various pan players who have cultivated an interest in these instruments. Their popularity appears to be infectious. Using research conducted from previous studies as well as a survey distributed to a population of music educators, steel bands and their contribution towards music education is discussed in its entirety.
**History**

**Trinidad and Tobago**

Steel pans originated in the Port of Spain on the islands of Trinidad and Tobago. Trinidad and Tobago are small islands a few miles off the coast of Venezuela. This two-island nation was in constant flux of European control after Columbus discovered them in 1498. European control brought slaves and indentured servants to this country. Although suppressed, these slaves and indentured servants found ways to express their culture through music.

Before steel pans were created, Tamboo-Bamboo bands were a popular art form in the area (Tiffe, *Trinidadian Steel* 15). Tamboo-Bamboo bands were comprised of mobile instruments made from bamboo. The term “Tamboo” is thought to come from the French word for “drum” (15). Tamboo-Bamboo bands played during Carnival, a huge celebration by colonists, indentured servants, and slaves (Martin 13). Carnival has since been a tradition in Trinidad, taking place every year just before lent. Rivalry was great amongst Tamboo-Bamboo bands and members started infiltrating the band’s instruments with sounds of steel (Tiffe, *Trinidadian Steel* 16). Winston “Spree” Simon and Ellie Mannette were some of the first to play on garbage cans during Carnival (Martin 15). They are thought to be the fathers of steel pan instruments (15). The modern steel pan known and played today is made from an oil drum, thus giving us the term “steel drum.” These oil drums came about due to their use for a United States Navy base located in Chaguaramas, Trinidad, during the Second World War (Tiffe, “The Arrival” 11).
Empty barrel drums were in an abundance of supply during this time. As steel bands grew more and more prominent, bands began to compete against one another establishing the competition known as Panorama in 1963, one year after Trinidad and Tobago became an independent nation (Martin 16). Steel pan is the national instrument of Trinidad and Tobago today (Holly 37).

United States

There is not a definite beginning to steel pans in the United States as steel pans began growing and spreading its way across the United States through multiple channels all within two to three decades time. The United States Navy played a large role in expanding the awareness of steel pans, as did multiple individuals from Trinidad who came to the United States to perform, teach or tune steel pans. These individuals and those in the United States Navy Band formed connections with each other, creating a web-like diagram of the spread of steel pans.

As briefly mentioned, the United States Navy base in Chaguaramas, Trinidad, stored empty barrel drums used for aircrafts and many of these barrel drums were used to make early steel pans. In 1956, members of the United States Navy as well as United States Navy Band who were stationed in Puerto Rico took an inspection tour to Trinidad during Carnival (Tiffe, “The Arrival” 11). After hearing steel bands play, Admiral Dan Gallery, the supervisor of this tour, asked his bandmaster, Chief Musician Charlie Roeper, if they could introduce these instruments to their Navy Band in Puerto Rico (11). In the spring of 1956, Roeper and his band members went to Trinidad to learn steel pans (11). With generous help from Ellie Mannette, the
United States Navy Band was given steel pans in exchange for oil barrels and they learned to play (11). The United States Navy band recorded their first album after a year of learning this innovative instrument and played for the World Fair in 1957 in Brussels, Belgium (11). The United States Navy Band was able to spread the music of steel pans all around the world through tours and performances for powerful figureheads such as presidents, admirals, generals, and head of states (11). This kind of publicity brought more and more attention to the art form.

**Prominent Players**

Significant figures in the world of steel pans are Pete Seeger, Al O’Connor, Clifford Alexis, Liam Teague, Murray Narell and his two sons: Andy and Jeff, and Ellie Mannette. Each of these individuals contributed greatly to the development and permeation of steel pans.

Pete Seeger is accredited for much of the early spread of steel pans throughout the United States as he spent a large portion of the years in between 1955-1969 touring, performing, and conducting instrumental workshops for colleges on steel pans (Martin 220). He helped to start steel bands at Cornell, the University of California Los Angeles, and Michigan State University, however these bands only survived a few short years (220).

Al O’Connor was the founder of the Northern Illinois University (NIU) Steel Band in 1973, the first permanently established steel pans program in the United States (217). NIU was also one of the most prominent centers for experimental music at the time, influencing more than 50 university steel bands in the United
States and Canada (Tiffe, *Trinidadian Steel* 51). O’Connor brought on Clifford Alexis, born in Port of Spain, to work as co-director at NIU in 1985 (51). Alexis lived in Trinidad until 1965 when he came to work as a builder, tuner, and arranger in the United States (Holly 26). Liam Teague, also a native of Trinidad, came to the United States in 1993 to study steel pans at NIU and now serves as a faculty member there (36). Teague believes O’Connor to be responsible for introducing steel pans to American universities and for spreading permanent steel pan programs to other university programs as student’s of O’Connor would start up their own ensembles wherever they went (38).

Murray Narell first learned of steel pans in 1960 during a concert by a steel band from St. Thomas. After listening to this group, Murray wanted to create a steel pans program in New York to help “at risk” students, keeping them out of gangs (Martin 306). In doing so Murray became one of the primary driving forces for introducing steel pans to the United States. He brought his two sons, Andy and Jeff, to listen to the United States Navy Band when they played at New York’s World Fair in 1964 (Tiffe, “The Arrival” 11). This concert sparked his sons’ interest in steel pans that would enhance steel pan development and immensely increase the advance of steel pans for years to come (11). While both are great pan players, Andy Narell is known all over for steel pan, possibly even better known in Trinidad than in the United States (13).

One can argue that [Andy] Narell, more than any other American (or arguably Trinidadian) steel panist with the exception of Ellie Mannette, is responsible for establishing and fostering an American
steel pan scene and is a key agent in propelling steel pan to its current state of global recognition. (Martin 300)

Another milestone Murray was able to accomplish was bringing Ellie Mannette to New York to further teach and build the steel pan movement in America (Tiffe, “The Arrival” 11). One of Mannette’s most significant contributions to steel pan was introducing and integrating them into schools; he began in New York and later moved to Washington D.C., working with several Trinidadian pan players in the area to teach steel pans and create steel bands (12). He felt that colleges’ use of steel bands has helped make the steel pan a more “legitimized,” established instrument (12). Mannette found that colleges saw steel bands to not only be used “as a tool for promotion and revenue, but as an effective teaching tool for ear training, understanding orchestration, and the like (12).”

The migration of steel pans has escalated significantly from when they were first introduced to the United States. There were only a few permanent bands by 1980 (Williams, “Steel Band” 54). There were five by 1981 (Yancey 1). In 2001, a reported 650 bands existed in schools (Williams, “Steel Band” 54). As of 2014, there were over 120 collegiate steel band programs; including grade schools and community ensembles there are over a thousand ensembles (Yancey 1). “The Narell’s and Mannette anticipate the day when ‘every school will have a steel band, as they do an orchestra, chorus or football teams’ (Tiffe, “The Arrival” 13).”
Literature Review

United States verses Trinidad

Steel pans bring an entirely new culture to the United States. They have a different sound and history than any other instrument. This is great exposure for young musicians in appreciating and experiencing another culture. As positive as this movement appears to be, there are some opinions that are unfavorable of the migration of steel pans to the United States. There exists the opinion that the United States has butchered Trinidadian culture, that the United States has rid the music of any non-western culture.

Kenyon Williams writes about how the United States differs from Trinidad. He describes how in the United States, a lot of steel band directors and its members do not know the arrangers they are playing (Williams, “Rediscovering the Roots” 8). They do not recognize their style and are not familiar with their tunes. This notion is typical of an ensemble, but Williams describes the fault in this:

The absurdity of the situation becomes apparent when a typical American steel band is compared to any other musical ensemble. No orchestra would employ a musical director who was unable to discuss the differences between Beethoven and Bach, and yet such a situation is status quo for American steel band directors. (8)

As steel pans may be regarded as innovative instruments, for them to be on equal playing ground with other ensembles such as orchestra, band, or choir, they must also be under the direction of those who are familiar with where and who the music
is coming from. Liam Teague continues this thought and states that although Americans may play Trinidadian tunes, members of steel bands do not know much about what they are playing (8). Members must do their part to understand this culture rather than taking the instrument out of the culture. Williams describes how in Trinidad, pan players know the arrangers of their piece and are acquainted with their styles. Granted these players have grown up with this kind of music and are familiar with its rhythm tendency of playing on the off beats, they approach each rehearsal with a familiarity of the tune, a preparation of playing Americans are not known to have. Williams describes this as one of the most important aspects of playing steel pans and yet the least utilized in the United States (Williams, “Rediscovering the Roots” 17). Steel pans are still relatively new instruments and it is exciting to see where they will go next, but it is important to keep its history and culture in tact, not to forget where they came from (17).

In contrast, Clifford Alexis responds with a different approach to the criticisms of playing steel pans in America:

There’s an attitude in Trinidad of ‘I’m from Trinidad and therefore I’m in the best place for pan.’ There are Trinidadian panmen who say that in order for me to be the best tuner I can be, I need to move back there. I say they’re wrong, that I’m not learning anything there. My eyes and ears have been opened to so much music by being in America, and I wouldn’t trade that experience just to say that I’m a better tuner because I’m living in Trinidad. (Holly 40)
Alexis’ student, Liam Teague, who shared his opinion above and is one of the most well-known pan players in the world with stomping grounds in Trinidad, has excelled through American training, a heated topic to those who support the notion that learning steel pans from where they originated is the best way to learn (Martin 215). When asked whether the steel pan movement to the United States has made a positive impact, Alexis said, “Very positive…. In the overall sense, this explosion is very good for the instrument. Sometimes in Trinidad they don’t think so, but that’s only selfish (Holly 38).”

**Evidence of Effectiveness towards Music Education**

Steel pans are not a typical instrument seen in music education today. There are now, as discussed, many more steel bands throughout the country to participate in, but steel band is not an instrumental ensemble that middle schools or high schools have routinely established. There are a multitude of benefits to incorporating steel pans into music education, as there are drawbacks. Many people have conducted research into the attributes of steel pans as part of a student’s musical education. Some of the larger studies will be discussed using data from student testimonials and interviews on their experiences with steel bands. These studies include a master’s thesis written by Janine Tiffe on *Trinidadian Steel Drum (Pan) Bands in Three Great Lakes States: A Study of Musical Migration*, excerpts by Scott Harris, percussionist and head of the Department of Music at Western Kentucky University, David Knapp, who was a graduate student from Florida State
University, and various other sources with their valuable input towards steel pan education.

David Knapp directed steel bands at Leon High School and to get into one of his steel bands Knapp held a rigorous audition process as these bands consisted of twenty students each (Williams, “Steel Band” 55). One of the major elements of steel pans is its large cultural identity. Once a student made it in the band, in order to fully immerse them in the culture, Knapp required his students to study the development of steel pans and Carnival in Trinidad. He had his students research different steel bands and keep informed of their progress throughout Panorama (56). In this way, Knapp was not only teaching his students how to play steel pans, but he was also ensuring that his students gained knowledge of the history and identity of the instruments.

Scott Harris, the head of the Department of Music at Western Kentucky University, is a percussionist who advocated the educational merits of steel pans in his article, *Expanding the Role of the Steel Drum Band: It's not just another Percussion Ensemble*. In his article he touches on different aspects of steel pans proposing that a steel band may achieve the same educational characteristics that other ensembles provide, legitimizing steel pans as its own separate musical ensemble. One of the first characteristics Harris addresses is that non-percussionists can play steel pans as well as percussionists. Some might believe that because steel pans are drums, they belong to percussion, but steel pans are not solely for percussionists. They are for all types of musicians, even those who do not know how to read music. Harris remarks that steel pans allow the player to perform without the stress of rigorous
technique (Harris 1). He implies steel pans can aid in learning music theory and aural skills. If a steel band learns by rote, students are required to understand what chord they are playing and where they are in the music (1). Harris encourages the ensemble to experiment with changes in rhythms and voicing, requiring students to hear changes in chord progressions and form, breaking away from what is written on the page (1). This practical approach to theory and aural skills leads into improvisation. Improvisation is perceived by many to be intimidating; however, Harris suggests that steel bands encourage improvisation by providing a non-threatening environment for students to experiment, helping them to become more comfortable with musical expression (1). Harris also recommends adding in different instruments to steel bands to change tone (2). This allows students the ability to play multiple instruments for a set list. Steel bands are also a great way for students to gain experience with arranging and may involve students learning skills of music notation software. This type of practice is invaluable for young musicians. Lastly, Harris remarks how steel pans can be played for a variety of audiences at all types of venues (6). These performances require students to engage the audience, unlike more traditional concerts where the interaction with the audience is typically limited.

Janine Louis Tiffe, a master’s student at Kent State University, wrote her master’s thesis on steel pans, studying their integration into public schools in the Midwest. She conducted interviews with faculty and students of these schools as well as distributed surveys in order to obtain their expertise and opinions about steel bands. At one of the schools Tiffe visited, Northern Illinois University, graduate
students named Jason and Wayne gave positive feedback as to how steel band at NIU has affected their music education. Jason liked that steel pans had a fully chromatic range and he believed he attained a better ability to read complex rhythms, a better sense of time and an improvement of rhythm section skills (Tiffe, *Trinidadian Steel* 56). Jason also spoke about how he found steel band to be more fun, energetic, unique and enjoyable when compared to other ensembles (55). He believed that steel band attracted “easy going and nice people; a certain type of person that was not stuck up or hoity-toity (56).” The one critique Jason had about steel pans was their limitations when it came to changing pitch and timbres. Wayne, the other graduate student interviewed from NIU, was a native of Trinidad and so was familiar with the instrument and its culture before coming to school. Wayne found the repertoire for steel pans in the United States to be more challenging than that of Trinidad. He believed that the academic side including music theory, notation, social and cultural considerations were not emphasized by the average pan player in Trinidad (56). In her interviews at NIU, Tiffe discovered “close to fifty percent of students cited increased musical skills as an effect of playing pan, supporting the notion that instruments can be used in academia to provide a meaningful, well-rounded music education (60).”

The next school Tiffe visited was Oberlin Conservatory, interviewing students Noah and Patia. Noah who was a drum set player remarked on the multiple ways in which steel pans were taught at Oberlin: by reading sheet music and by rote (64). He believed he benefitted from Oberlin’s steel band known as Oberlin Steel in ways that enhanced his learning in formal musical training, music theory, and
experiencing new music (65). Patia found the positive takeaways from steel pans to be the challenge, timbre, accessibility, repertoire, and small community of pan players (65). Patia felt that non-musicians could easily take up steel pans (68). Her one critique was that steel pans were limited in tone and some of the standard repertoire (66). Other students interviewed at Oberlin believed their experience in steel band gave them a better sense of rhythm, cultural awareness, and increased sight-reading skills, just as Jason from NIU mentioned (71).

Lastly, Tiffe visited a school known as Mott Middle College High School (MMCHS). MMCHS created its steel band program in 1993 with Dr. Chery Wagonlander, the principle of MMCHS, whose goal was to engage students otherwise not connected at school (34). As students have gone on to credit MMCHS’s steel band with their completion of school, it is safe to say this operation was a success (34). Further, the National Association for Music Education currently states, “Steel bands have long been used to reach students with at-risk behavior” (Brown 1). Steel band at MMCHS proved to be one of the best options for students at risk of dropping out of school or students who did not have formal music training as they thrived in their steel pan studies (Tiffe, Trinidadian Steel 35). Students of the program felt better about themselves, their academic abilities, and as though they were a part of a team (35).

Tiffe research provides extensive feedback from those who have experience with playing steel pans. The benefits of implementing a steel band in school overwhelmingly outweigh the drawbacks. Based on the interviews held at these schools, a steel band attracts musicians and non-musicians as Oberlin taught
students to play steel pans by rote in addition to reading sheet music. Students attained better music skills and some students even succeeded in their academics due to joining a steel band. The culture where steel pans come from, if taken advantage of, can be valuable to students in raising their cultural awareness and because of the small community of pan players, those who play steel pans are better able to get in contact with some of the best players of the steel pan, a feature that does not happen often with other instruments. The chromatic style of the steel pan enables students to play all kinds of musical genres exhibiting the instrument’s flexibility.

These chromatic instruments are helpful in learning music theory, as the students interviewed reflected on their improved skills. The individual notes on a steel pan are methodically placed. A lead steel pan’s notes are laid out in the circle of fifths. Double seconds are formatted in whole steps, triples or guitars are in diminished thirds, and bass pans are set up to root-fifth/fourth patterns. While students realize this or not, by becoming more familiar with a steel pan and where it’s notes are located, students are also learning about these intervals.

In conclusion of these findings and discussions on what steel bands can provide students, there is one last study to highlight: doctoral student, Andrew Martin, included in his dissertation at the University of Minnesota interviews with some members of its steel band. He interviewed a horn player asking about the strumming patterns of playing double-second pans and how they helped her since the rhythms are typically on the off beats, an uncommon custom for Western music. This student’s response:
Are you kidding, I wish I had gone through a semester of pan before I got serious about Horn. In the future I am going to recommend to all of my students that they either listen to or play in a steel pan group. It helps your feel without you even knowing it. (Martin 249)

Music Standards

The National Association for Music Education (NAfME) determines the music standards that educators must incorporate when teaching a musical ensemble in grades K-12. In 1994, the music standards consisted of a list of nine content standards teachers must focus on to develop a successful musician. These standards are listed below (“Archived” 1):

1. Singing, alone and with others, a varied repertoire of music.
2. Performing on instruments, alone and with others, a varied repertoire of music.
3. Improvising melodies, variations, and accompaniments.
4. Composing and arranging music within specified guidelines.
5. Reading and notating music.
6. Listening to, analyzing, and describing music.
7. Evaluating music and music performances.
8. Understanding relationships between music, the other arts, and disciplines outside the arts.
9. Understanding music in relation to history and culture.
The 2014 updated music standards are focused on music literacy (see Appendix B). There are three artistic processes: creating, performing, and responding. There is another process, connecting, which the musical standards include in its formal documentation but believes it to be embedded in the processes of creating, performing, and responding. There are several components for each of these three processes.

The first process, creating, requires students to imagine or generate creative ideas, plan and make decisions, evaluate and refine the quality of their creative work, and present or share musical work that conveys intent and demonstrates originality (“2014 Music 1). Performing requires students to select repertoire based on interest, knowledge, and skill, and to analyze works and their implications for performance (3). It requires students to interpret the creator’s intent, rehearse, evaluate, and refine performances individually or with others, and to present musical work expressively, appropriately, and with technical accuracy (3). The last process, responding, requires students to select music to experience and analyze how understanding a musical work evokes a response (5). Students must interpret the creator’s expressive intent, and evaluate musical works and performances based on established criteria (5).

By conducting a survey (see Appendix A), it will be determined how music educators in grades K-12 believe steel bands follow these music standards and therefore make themselves a viable option successful in the creation of young musicians.
Survey

Purpose

The purpose of this survey is to determine the prevalent attitude about the effectiveness of teaching steel pans in comparison with other musical ensembles using the 2014 Music Standards as accredited by the National Association for Music Education.

Methods

This survey has been reviewed and approved by the thesis director, second reader, the International Review Board (IRB), and multiple other individuals to achieve concise results. The survey was distributed by email and using Google Forms to all Berkeley County South Carolina music educators. Responses were reported and deciphered as the recipient completed the survey, maintaining anonymity of the participants.

Ways to Improve

There are multiple ways in which this survey could have been improved. First, the survey could have been distributed to a larger set of individuals, not just those in Berkeley County, South Carolina, so as to achieve a wider variety of results. The survey could also have included collegiate data rather than looking only at K-12 grades.
Hypothesis

Through this survey it will be determined that steel bands are equally successful in educating young musicians as the mainstream ensembles such as orchestra, wind ensemble, and chorus. This ensemble follows the Music Standards and is a valuable, exciting ensemble for students to take part in.

Results

The following graphs are the results received from surveys distributed to music educators in the Berkeley County, South Carolina area. In these graphs, the possible answer choices are very strongly disagree, strongly disagree, disagree, agree, strongly agree, and very strongly agree, respectively.

Steel drums are helpful in learning music theory. (15 responses)
Steel drums are helpful in developing the student’s ear in terms of ear training, improvisation, aural skills, etc.

(15 responses)

Steel drums are helpful with inspiring creativity. (15 responses)

Steel drums are beneficial to your student’s musical growth and/or personal development.

(15 responses)
Learning steel drums is beneficial to the academic achievements of your students. (15 responses)

The simplicity of the instrument positively affects the learning capabilities of the student when it comes to teaching concepts of musicality. (15 responses)

Your students greatly enjoy playing steel drums. (15 responses)
Out of the fifteen responses received, the two statements that did not meet any friction from respondents were: Steel drums are helpful with inspiring creativity and teaching steel drums follows the music standards established by the National Association for Music Education. These responses illustrate that none of the music educators who responded to this survey disagreed with these two propositions.

Let us dissect a few of these statements. The first statement, “Steel drums are helpful in learning music theory,” was given two ratings of disagree. Further looking into these survey responses, the two individuals who did not agree with this
statement have not played in a steel band before. One of them also wrote in feedback when given the option remarking, “I do not think steel drums are any more effective than any other musical medium.”

The next statement, “Steel drums are helpful in developing the student’s ear in terms of ear training, improvisation, aural skills, etc.” was also met with two individuals who disagree, one being the same with the comment previously mentioned. The majority of respondents believed either strongly or very strongly that steel pans could indeed be helpful in ear training.

Jumping ahead to “learning steel drums is beneficial to the academic achievements of your students,” this statement was met with the most opposition. Perhaps correlation with academic achievements and playing steel pans has not yet been established. Music is known to have a positive effect on academics, however, more research could be done to look at individual instruments and how they affect student’s academic achievements. The instrument itself may not be what drives this statistic, possibly the knowledge and skills of reading music are what should be focused on. Still, a majority of responders did believe steel pans to contribute to academic achievements; it would be interesting to know if they believe it to be the instrument itself or if they were thinking in terms of knowing music in general.

The statement, “Your students greatly enjoy playing steel drums,” was not met with a lot of opposition, however, it was surprising to find that some responders strongly and very strongly disagreed. As it was found in Tiffe’s research, playing steel pans is typically very enjoyable, both to the player and the audience member. Those who disagreed with this statement have never played steel pans
before, although one of them has been to concerts and festivals for the instruments. This may be why they do not see the excitement their students could find in playing steel pans.

In contrast, a respondent who very strongly agrees with the enjoyment that comes along with playing steel pans makes the following remark:

Steel drums is a great complimentary component to a music program, but if you have a band program in place, can hurt student interest in your band program. It mainly has to do with the instant gratification that comes with being able to strike a note and get an immediate sound. However, I make it so that students have to be in band in order to audition for steel drums, which works as a great motivating tool. Overall, if used properly, steel drums can really benefit a music program.

This individual remarks on the simplicity of the instrument by referring to instant gratification received when striking a note on the steel pan, however, in the statement asking about the simplicity of the instrument and how this positively affects the learning capabilities of the student when it comes to teaching concepts of musicality, this is the only respondent to strongly disagree. Perhaps this respondent does not believe the simplicity goes hand in hand with teaching musicality. They do raise an interesting point that the draw of playing steel pans can possibly hurt other ensembles. This person uses their steel band to their advantage to encourage more students to join their other ensembles, which is a great use of their program.
A related response to the one above comes from an individual who does not deem these instruments to be simple however did respond with an “agree” to the state of simplicity when it comes to teaching concepts of musicality. They wrote feedback of their own to explain their opinions:

At the elementary level, steel drums are not "simple" instruments to play. Students must have fine and gross motor skills and self-control along with knowledge of music theory up to or above the level of the state standards for K-5 instruction. Self-discipline, determination and self-confidence that are developed through participation in a steel band ensemble are equally as rewarding as the musical skills attained. The cost of quality instruments and tuning of instruments prohibits most elementary programs from purchasing. My school is fortunate to have had a large grant in which we purchased our entire ensemble. Without outside funding, they really out of reach for most younger students.

In addition, another respondent wrote feedback, “A great instrument that can be learned how to play later in school (high school).” Between these responses, perhaps it would be useful to look into what age group would be best to begin learning to play steel pans. Based on these responses, there is a population of music educators who believe learning at young age, such as K-4, is not suitable for children nor is there money to fund these endeavors. The responses and short answers received from this survey was very telling about the opinions of steel bands among
those who may or may not have experience with the ensemble but who do have experience in teaching music and therefore know the national standards to be met.
Conclusion

There appears to be a need of more research before coming to a common consensus about steel pans placement in K-12 education. Among college ensembles, steel pans are simplistic instruments that lend themselves to be an easy introduction to playing music. There is not a complicated technique that accompanies pan playing as may accompany traditional instruments. Technique is simple; students do not need to worry about breathing or having previous experience with other instruments; because of this it is easily seen to be more accessible. This is one of the instrument’s greatest strengths. In terms of implementing steel bands into elementary schools, as Kenyon Williams describes, “The appeal of pan at the elementary level is obvious. Within a very short time frame, even the youngest beginner can play a melody or strum a tune.... (Williams, “Steel Bands” 54).” However, there are other opinions such as those found in the survey that suggests more research should be done on elementary education.

The art of steel pans demonstrates creativity in how a culture with little resources created an entire art form. This evidence augments a young student’s drive to explore other mediums so that they too can create. Steel pans are a great tool in becoming more comfortable with improvisation, gaining experience with different performance venues and audiences, as well as providing practice for young arrangers. Each of these processes relates to those described in the 2014 Music Standards. Steel pans teaches music theory, allows the player an abundant range of musical styles to play in such as jazz, calypso, classical, or soca, and is a means for
learning more about another culture, its composers, and history. It is a great introduction to the world of music. Steel pans are an attractive instrument, both visually and aurally.

One of the most appealing elements of steel bands in public schools is the wide range of students they attract. Since rote learning and music reading are considered equally valid educational methods for many steel band programs, the ensembles can draw both high-achieving music students and at-risk students with no musical background. (54)

Clifford Alexis believes ear training to be one of the most important tools we have that we must utilize to become better pan players. At the same time, steel pan is a great instrument to see aural theory at play, developing a better-rounded musician (Holly 41). It can also be seen that due to the attractiveness of steel pans to the listener as well as the player and its simplistic design, it may provide great motivation to the player. "'You know what I don’t like about that steel band? There isn’t anybody that doesn’t like it,' said O’Connor (Tiffe, Trinidadian Steel 59)."

On speaking about implementing steel bands in school as a standard ensemble, Marc Svaline, a very well known steel pan educator and arranger in the United States says, “If directors are able to strike the proper balance, a powerful new tool for music education will continue to grow and flourish across the United States (Williams, “Steel Band” 57)."
Appendix A

The following is a survey that was distributed to music educators in the Berkeley County School District:

My name is Morgan Esarey and I am conducting this survey for my senior honors thesis on steel drums. The purpose of this survey is to determine the effectiveness of teaching steel drums in comparison with other musical ensembles using the 2014 Music Standards as accredited by the National Association for Music Education. The results will provide data about steel drums’ use as a non-traditional, formal form of music education.

Your participation in this survey is voluntary. If you wish to withdraw your answers at anytime, you may do so. The data collected through this survey is completely anonymous and will not be linked back to you in any way.

Please email your completed surveys back to me at morganesarey@gmail.com. You may contact me at the above email address or by phone at (843) 259-9149 for further questions and/or concerns.

Do you understand your rights as a participant in this survey and agree to participate?
Yes or No

This survey is conducted using a Likert scale from one to six with one indicating you strongly disagree and six indicating you strongly agree with the specified question.

Section One: Knowledge Base
1. Steel drums are helpful in learning music theory.
   1 2 3 4 5 6

2. Steel drums are helpful in developing the student’s ear in terms of ear training, improvisation, aural skills, etc.
   1 2 3 4 5 6

3. Steel drums are helpful with inspiring creativity.
   1 2 3 4 5 6

4. Steel drums are beneficial to your student’s musical growth and/or personal development.
   1 2 3 4 5 6
5. Learning steel drums is beneficial to the academic achievements of your students.  
1 2 3 4 5 6

6. The simplicity of the instrument positively affects the learning capabilities of the student when it comes to teaching concepts of musicality.  
1 2 3 4 5 6

7. Your students greatly enjoy playing steel drums.  
1 2 3 4 5 6

8. Steel drums engage your students in a unique and effective way.  
1 2 3 4 5 6

Any other feedback you’d like to give regarding steel drums (optional):

Section Two: Music Standards
1. To what degree do you believe teaching steel drums follows the music standards established by the National Association for Music Education? (Please reference attached PDF of music standards)  
1 2 3 4 5 6

Section Three: Demographics
Highest degree earned:
High School  Associate  Bachelor’s  Master’s  Doctorate

Area(s) of study:

Minor(s):

Where did you go to school?

What do you teach?

What grade levels do you teach?

Where are you from (city, state)?

What is your primary instrument?

Have you participated in steel band before?

How did you first come in contact with steel drums?
## Appendix B

The following are the current Music Standards for an ensemble from the National Association for Music Education’s website (“2014 Music” 1).

### Creating

<table>
<thead>
<tr>
<th>Enduring Understanding</th>
<th>Essential Question: How do musicians generate creative ideas?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imagine</td>
<td>Generate musical ideas for various purposes and contexts.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Novice</th>
<th>Intermediate</th>
<th>Proficient</th>
<th>Accomplished</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MU01IE.1a</strong></td>
<td>Compose and improve melodies and rhythmic ideas or motives that reflect characteristic(s) of music or trait(s) studied in rehearsal.</td>
<td><strong>MU01IE.2a</strong></td>
<td>Compose and improve harmonies and rhythmic passages based on characteristic(s) of music or trait(s) studied in rehearsal.</td>
<td><strong>MU01IE.3a</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plan and Make</th>
<th>Select and develop musical ideas for defined purposes and contexts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice</td>
<td>Intermediate</td>
</tr>
<tr>
<td><strong>MU02IE.1a</strong></td>
<td>Select and develop draft melodies and rhythmic passages that demonstrate understanding of characteristic(s) of music or trait(s) studied in rehearsal.</td>
</tr>
</tbody>
</table>

### Evaluate and Refine

<table>
<thead>
<tr>
<th>Enduring Understanding</th>
<th>Essential Question: How do musicians improve the quality of their creative work?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluate</td>
<td>Evaluate and refine selected musical ideas to create musical work that meets appropriate criteria.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Novice</th>
<th>Intermediate</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>MU03IE.1a</strong></td>
<td>Evaluate and refine draft compositions and improvisations based on knowledge, skill, and teacher-provided criteria.</td>
<td><strong>MU03IE.2a</strong></td>
<td>Evaluate and refine draft compositions and improvisations based on knowledge, skill, and collaboratively-developed criteria.</td>
<td><strong>MU03IE.3a</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Present</th>
<th>Share creative musical work that conveys intent, demonstrates craftsmanship, and exhibits originality.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice</td>
<td>Intermediate</td>
</tr>
<tr>
<td><strong>MU04IE.1a</strong></td>
<td>Share personally-developed melodies and rhythmic ideas or motives – individually or as an ensemble – that demonstrate understanding of characteristic(s) of music or trait(s) studied in rehearsal.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Share creative work ready to share?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novice</td>
</tr>
<tr>
<td><strong>MU05IE.1a</strong></td>
</tr>
</tbody>
</table>
## Performing

**Select**
- Select varied musical works to present based on interest, knowledge, technical skill, and context.
- Essential Question: How do performers select repertoire?

<table>
<thead>
<tr>
<th>Level</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MU4P.1.E.a</td>
<td>Select varied repertoire to study based on interest, music reading skills (where appropriate), an understanding of the structure of the music, context, and the technical skill of the individual or ensemble.</td>
<td>Select a varied repertoire to study based on music reading skills (where appropriate), an understanding of formal design in the music, context, and the technical skill of the individual or ensemble.</td>
<td>Explain the criteria used to select a varied repertoire to study based on an understanding of theoretical and structural characteristics of the music, the technical skill of the individual or ensemble, and the purpose or context of the performance.</td>
<td>Develop and apply criteria to select varied repertoire to study and perform based on an understanding of theoretical and structural characteristics and expressive challenges in the music, the technical skill of the individual or ensemble, and the purpose and context of the performance.</td>
<td></td>
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</tbody>
</table>

**Analyze**
- Analyze the structure and context of varied musical works and their implications for performance.
- Essential Question: How does understanding the structure and context of varied musical works inform performance?

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MU4P.1.E.a</td>
<td>Demonstrate, using music reading skills where appropriate, how knowledge of formal aspects in musical works inform prepared or improvised performances.</td>
<td>Demonstrate, using music reading skills where appropriate, how the setting and formal characteristics of musical works contribute to understanding the context of the music prepared or improvised performance.</td>
<td>Demonstrate an understanding of context to varied repertoire of music through prepared and improvised performances.</td>
<td>Demonstrate how understanding the style, genre, and context of a varied repertoire of music influences prepared and improvised performances as well as performers’ technical skill to connect with the audience.</td>
<td></td>
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</tbody>
</table>

**Interpret**
- Develop personal interpretations that consider creators’ intent.
- Essential Question: How do performers interpret musical works?

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MU4P.1.E.a</td>
<td>Identify expressive qualities in a varied repertoire of music that can be demonstrated through prepared and improvised performances.</td>
<td>Demonstrate understanding and application of expressive qualities in a varied repertoire of music through prepared and improvised performances.</td>
<td>Demonstrate an understanding of context to varied repertoire of music through prepared and improvised performances.</td>
<td>Demonstrate how understanding the style, genre, and context of a varied repertoire of music influences prepared and improvised performances as well as performers’ technical skill to connect with the audience.</td>
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</tbody>
</table>

## Rehearse, Evaluate, and Refine

**Evaluate and refine personal and ensemble performances, individually or in collaboration with others.**

<table>
<thead>
<tr>
<th>Level</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MU4P.1.E.a</td>
<td>Use self-reflection and peer feedback to refine individual and ensemble performances of a varied repertoire of music.</td>
<td>Develop strategies to address technical challenges in a varied repertoire of music and evaluate their success using feedback from ensemble peers and other sources to refine performances.</td>
<td>Develop strategies to address expressive challenges in a varied repertoire of music and evaluate their success using feedback from ensemble peers and other sources to refine performances.</td>
<td>Develop and apply appropriate rehearsal strategies to address individual and ensemble challenges in a varied repertoire of music, and evaluate their success.</td>
<td></td>
</tr>
</tbody>
</table>

**Present**
- Perform expressively, with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context.

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MU4P.1.E.a</td>
<td>Demonstrate attention to technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music.</td>
<td>Demonstrate attention to technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music representing diverse cultures and styles.</td>
<td>Demonstrate attention to technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music representing diverse cultures, styles, and genres.</td>
<td>Demonstrate mastery of the technical demands and an understanding of expressive qualities of the music in prepared and improvised performances of a varied repertoire representing diverse cultures, styles, genres, and historical periods in multiple types of ensemble.</td>
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</tbody>
</table>

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<tr>
<th>Level</th>
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<tr>
<td>MU4P.1.E.a</td>
<td>Demonstrate attention to technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music representing diverse cultures and styles.</td>
<td>Demonstrate attention to technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music representing diverse cultures, styles, genres, and technical periods in multiple types of ensemble.</td>
<td>Demonstrate understanding of expressive qualities in prepared and improvised performances.</td>
<td>Demonstrate understanding of expressive qualities in prepared and improvised performances and connecting with an audience through prepared and improvised performances.</td>
<td>Demonstrate understanding of expressive qualities in prepared and improvised performances and connecting with an audience through prepared and improvised performances.</td>
</tr>
</tbody>
</table>

30
## RESPONDING

### Select

**Enduring Understanding:** Individuals' selection of musical works is influenced by their interests, experiences, understandings, and purposes.

<table>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>MU-R7.1.E.5a</strong></td>
<td>Identify reasons for selecting music based on characteristics found in the music, connection to interest, and purpose or context.</td>
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</tr>
<tr>
<td><strong>MU-R7.1.E.6a</strong></td>
<td>Discuss how the elements of music are manipulated in the response to music.</td>
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</tr>
<tr>
<td><strong>MU-R7.1.E.6b</strong></td>
<td>Explain how the analysis of structures and contexts inform the response to music.</td>
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</tr>
<tr>
<td><strong>MU-R7.1.E.6c</strong></td>
<td>Apply criteria to select music for a variety of purposes, justifying choices citing knowledge of the music and the specified purpose and context.</td>
<td></td>
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</tbody>
</table>

### Analyze

**Essential Question:** How does understanding the structure and context of the music influence a response?

**Enduring Understanding:** Analysis of musical works and performances informs the response.

<table>
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<tr>
<td><strong>MU-R7.4.B.5a</strong></td>
<td>Identify how knowledge of context and the use of repetition, similarities, and contrasts inform the response to music.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MU-R7.4.B.6a</strong></td>
<td>Explain how the analysis of structures and contexts inform the response to music.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MU-R7.4.B.6b</strong></td>
<td>Evaluate and justify interpretations of the expressive intent and meaning of musical works and performances based on personally-developed criteria.</td>
<td></td>
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</tr>
</tbody>
</table>

### Interpret

**Essential Question:** How do we discern the musical creators' and performers' expressive intent?

**Enduring Understanding:** Through their use of elements and structures of music, creators and performers provide clues to their expressive intent.

<table>
<thead>
<tr>
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<tr>
<td><strong>MU-R7.1.E.5a</strong></td>
<td>Identify how knowledge of context and the use of repetition, similarities, and contrasts inform the response to music.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MU-R7.4.B.6c</strong></td>
<td>Justify interpretations of the expressive intent and meaning of musical works and performances.</td>
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</tbody>
</table>

### Evaluate

**Essential Question:** How do we judge the quality of musical works and performances?

**Enduring Understanding:** The personal evaluation of musical works and performances is informed by analysis, interpretation, and established criteria.

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>MU-R7.1.E.5a</strong></td>
<td>Identify and describe the effect of interest, experiences, analysis, and context on the evaluation of works.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MU-R7.1.E.6a</strong></td>
<td>Evaluate works and performances based on personally-developed criteria, including analysis and interpretation of the structure and context.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>MU-R7.4.B.6d</strong></td>
<td>Develop standards and personally-developed criteria for evaluating works and performances, including analysis and interpretation of the structure and context.</td>
<td></td>
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</tbody>
</table>
CONNECTING

Connect #10
Enduring Understanding: Musicians connect their personal interests, experiences, ideas, and knowledge to music, creating, performing, and responding.

Essential Questions: How do musicians make meaningful connections to creating, performing, and responding?

Novice
Intermediate
Proficient
Accomplished
Advanced

**MUS11.03.A.5** Demonstrate how interests, knowledge, and skills relate to personal choices and intent when creating, performing, and responding to music.

**MUS11.03.A.5a** Share personally developed methods and theories related to music – individually or in an ensemble – that demonstrate understanding of the structures of music, context, and the technical skills of the individual or ensemble.

**MUS11.03.A.5b** Synthesize and relate knowledge and personal experiences to make music.

**MUS11.03.A.5c** Select a varied repertoire to study based on knowledge and technical skills of the individual or ensemble and perform an understanding of formal design in the music, context, and the technical skills of the individual or ensemble.

**MUS11.03.A.5d** Demonstrate understanding of formal and organizational structures in various cultural contexts and performance practices.

**MUS11.03.A.5e** Identify sources for selecting music based on understanding function, the studio, connections to intent, and purpose or context.

Connect #11
Enduring Understanding: Understanding connections to varied contexts and daily life enhances musicians’ connections to creating, performing, and responding.

Essential Questions: How do the other arts, other disciplines, contexts and daily life inform creating, performing, and responding?

Novice
Intermediate
Pretern
Accomplished
Advanced

**MUS1.03.A.5** Demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts, and daily life.

**MUS1.03.A.5a** Contrast and compare methods and theories related to music – individually or in an ensemble – that demonstrate understanding of the structures of music, context, and the technical skills of the individual or ensemble.

**MUS1.03.A.5b** Share personally developed methods and theories related to music – individually or in an ensemble – that demonstrate understanding of the structures of music, context, and the technical skills of the individual or ensemble.

**MUS1.03.A.5c** Share personally developed methods and theories related to music – individually or in an ensemble – that demonstrate understanding of the structures of music, context, and the technical skills of the individual or ensemble.

**MUS1.03.A.5d** Demonstrate an understanding of the context of the music through prepared and improvised performances.

**MUS1.03.A.5e** Identify the effect of others’ experiences, analyses, and contexts on the evaluation of music.


