

Effect of Knowledge in Music Notation Systems on College Music Majors' Transcription of West African Drumming Music

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Abstract

Transcription of music of world cultures could be vital for music educators who wish to include the study and performance of world musics in their professional practice. It contributes to deeper understanding of the music and could be part of the process of producing musical performance materials. The purpose of this study was to examine the effect of knowledge in music notation systems on American college music majors' transcriptions of West African drumming music. Three college music classes (N = 64) completed two transcriptions (two weeks apart) of short West African drumming excerpts; two treatment groups engaged in drumming activities; one of the treatment groups also learned three notational systems for transcribing West African drumming music. The class that received both treatments preferred TUBS notation. Data were analyzed using a qualitative approach. Findings suggested that the college music majors might prefer alternative notation systems to Western notation for the transcription of West African drumming music. This realization on the part of students reveals the importance for teachers of world musics (especially oral/aural traditions) to carefully consider the impact of the notational system on the process of cultural transmission inherent in world music instruction.

Introduction

The importance of the inclusion of world musics in collegiate and K-12 settings is well-established (Choate, Fowler, Brown, & Wersen, 1967; Consortium of National Arts Education Associations, 1994; National Association of Schools of Music, 2009). Notation of these musics is often a convenient tool for teachers who teach them. However, there are various notation systems from which teachers could choose to use in their practices, depending on the musical tradition involved, goals of the instruction, knowledge of the teacher, and skill levels of the students. When the music is not available in any form of musical notation, the teacher may have to transcribe the music into notation for instructional purposes. This presents a problem for the music educator wishing to transcribe world musics for use in the music classroom. Put simply, what is the best notational method to use? Should a Western-trained music educator use traditional Western staff notation to transcribe musics of world cultures? Or should one use a notation system

native to the music in question? What if the music in question is from an aural/oral tradition, and there is no native notation?

This last question, regarding the use of notation in the teaching of musics from aural/oral traditions, is rooted in a concern for the teaching of any music, world musics especially, as a cultural process. Merriam's (1964) three-part model of music (music as sound, music as behavior, and music as concept/ideas) held that music was more than simply tonal-rhythmic combinations of sound, and suggested that music educators ought to think of the teaching of traditionally oral/aural world musics as a cultural process of recontextualization, and that world musics might or might not readily map onto standard music classroom practices, including the use of notation. Therefore, prior to exploring which notational system is most appropriate for transcription of traditionally non-notated musics, it would first be natural to ask oneself whether any notation is appropriate for the analysis or teaching of musics of aural/oral traditions. Nettl and Russell (1998) asserted the appropriateness of analyzing musical processes from oral/aural traditions (improvisation) via the use of notation, arguing against the notion that transcribing performances from aural traditions negated the spirit of the improvisation. Howard (2006) described the balance between the use of notation and aural/oral learning in the context of traditional Korean percussion music. One of the Korean percussionists he quoted stated, regarding the emic use of notation in learning the aural/oral tradition, that "the notation forms the basis, but I ... add many things to create good music" (p. 25). Campbell (2004) discussed the use of notation in teaching world musics to non-culture members, stating that "notation is a significant invention that can enhance listening experiences, and it may serve as a graphic map to melodic and rhythmic components of the music" (p. 10). These works suggested the use of notation in the teaching of oral/aural traditions as justifiable, as long as the teacher remembered and respected the role of the notation as a tool, and that the notation was not "the music."

Various scholars have weighed in over the past several decades on the appropriateness of using Western notation to notate world musics. The scholar's interest in "music-in-culture" versus "cultures-of-music" seemed to have played a role in

whether he or she advocated Western notation or indigenous notations. Early comparative musicologists and ethnomusicologists were preoccupied with comparing musics of world cultures to Western music (Abraham & Hornbostel, 1994; Hopkins, 1966). Hence, they advocated the use of Western notation because their readership (comprising other Western musicologists) was literate in Western staff notation. Other researchers were more interested in the role that music played within a particular culture, and were concerned that by using Western notation, scholars interested in comparing the musical characteristics of different musical systems would risk erroneously highlighting or neglecting elements of world music traditions (Hood, 1971; Koetting, 1970). Those concerned about the problems of using Western notation advocated the use of indigenous notations (Hood, 1971) for transcription by hand, or, in the case of musics with no indigenous notation, some less biased alternate notation, such as Harland and Koetting's Time Unit Box System (TUBS) notation (Koetting, 1970; Stone, 1985). Others simply advocated the use of transcription machines (Seeger,

1977), citing the increased levels of detail and objectivity (since machines themselves have no cultural biases) of the transcriptions.

Regarding the transcription of West African *djembe* drumming music, three methods of notating this music have become most prevalent among researchers, teachers, and performers: (a) modified Western notation, (b) TUBS, and (c) Gun-Go-Do-Pa-Ta method. Modified or altered (these terms are used interchangeably) Western notation has been utilized both descriptively and prescriptively for research and performance of West African drumming. Paschal Younge, one of the foremost exponents of African music in the United States and former chair of the Percussive Arts Society World Percussion Committee, advocated the use of modified Western notation (see Figure 1) for the writing of West African drumming examples (Jones, Bakan, Falvo, Teel, & Younge, 2008). Typical modifications included indications for which hand to be used to strike an instrument, symbols to describe the particular tone (such as open, bass, or slap) to be played on a drum, and special staves to suit the needs of particular pieces.

KPANLONGO

Tr. by Paschal Yao Younge
West Virginia University
September, 1997

FORM: 1. Start with [Atswade atswade]
2. Enter with claps
3. Bells and rattles enter
4. Sing song
5. Master drum plays signal for other supporting drums to enter
6. Dancers enter after the second signal from the master drum - music moves faster
7. Master drummer to cue for each new dance movement
8. End signal

Figure 1. Modified Western notation.

The Time Unit Box System (TUBS) notation was devised by Phillip Harland and James Koetting as an alternative means of notating West African drumming examples (Koetting, 1970) for analysis as well as performance. Koetting (1970),

Stone (1985), and Koetting and Knight (1986) cited problems with the use of Western staff notation to represent West African rhythms. Primarily, the problematic issues described by these scholars were (a) an assumption of equal beats, (b) the imposition of an

abstract metric structure, and (c) a failure to adequately capture the “close interrelation” between vertically-aligned drum ensemble patterns. TUBS was devised to address these issues.

Figure 2 illustrates the principal features of TUBS that its creators and advocates have cited as rendering it effective for the representation and analysis of West African drumming music. The rhythmic focus of TUBS is the smallest unit of time; time is represented abstractly as evenly-divided pulses containing either sound (the hitting of a drum or other percussion instrument) or silence. More exactly, the boxes indicating sounds are indicative of rhythmic onsets; tonal duration of any particular drum stroke is not of particular importance in TUBS. In this regard, the patterns of sound and silence are actually patterns of pulses in which a drum or other percussion instrument is struck and pulses in which such an instrument is not struck. Rather, the pattern of rhythmic onsets, as well as the interrelation between simultaneously sounded patterns of rhythmic onsets (which TUBS represents vertically, in a score-like format) is the primary feature of TUBS.

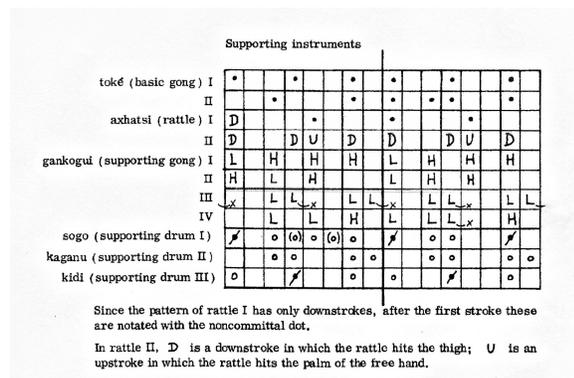


Figure 2. TUBS Notation

The Gun-Go-Do-Pa-Ta method of notation (see Figure 3) was invented by Babatunde Olatunji in the early 1970s in Harlem, New York. Its principal features included the use of vocal syllables to represent the three main tones (open, bass, and slap tones) often played on hand drums such as the conga, djembe, and ashiko drums. The most notable printed example of Olatunji’s work was his *Drums of Passion Songbook* (Olatunji, 1993). This work contained transcriptions, created by Doug LeBow (one of Olatunji’s students), of twenty-two of his songs, including vocal parts and drumming parts. The pieces were intended for performance, making the collection an example of prescriptive notation. However, the transcriptions also

have served as representations of Olatunji’s musical recordings by the same title, hence rendering them examples of descriptive notation as well. It is interesting to note that the Gun-Go-Do-Pa-Ta syllables, developed from the Yoruba language of Western Africa, have also been utilized aurally as a mnemonic device (without notating them), and that the Gun-Go-Do-Pa-Ta method features Western notational devices, such as notes, time signatures, and barlines. The principal feature distinguishing Gun-Go-Do-Pa-Ta from modified Western notation is the use of syllables in the former.

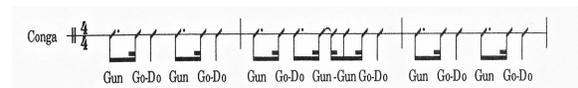


Figure 3. Gun-Go-Do-Pa-Ta Notation.

To summarize, some researchers (mostly early comparative musicologists) advocated the use of Western notation for all musical transcriptions, while others (mostly ethnomusicologists of more recent times) have favored indigenous notation systems when available and alternative notation systems (such as TUBS or Gun-Go-Do-Pa-Ta) for transcription of music from oral traditions. In light of the potential uses of notations in music teaching, there was a need to explore the choices that college music majors make regarding notation of West African djembe music and how knowledge of alternative notation systems might affect their decisions.

Method

Undergraduate music majors completed two musical transcriptions of West African djembe music in a multiple case study design, once at the beginning of the study and again at the end. The multiple case study methodology was appropriate for the present study because each case was a class, which forms part of the natural setting in an educational institution. A music educator is likely to teach this kind of music in a class setting. Because each class, in general, is a naturally occurring unit within the educational context, it made sense in this study to treat each class as a case. In order to compare the classes, the multiple case study approach was necessary.

Participants

Participants were undergraduate music majors at a research university in the southeastern United States. Three music classes (groups A, B, and C) participated in a multiple case study. Group A, which served as a

control group, was an undergraduate music theory class. Students in the class were mostly sophomore and junior undergraduate music majors. Since the theory course was required for all music majors, a broad cross-section of instruments and voices from the university's music unit was represented. In the first round of transcriptions, there were 39 students present; in the second round, 29 were present. Group B was a studio class of undergraduate college percussion majors, representing all four classifications (freshmen, sophomores, juniors, and seniors). In the first round of transcriptions, 7 students were present; in the second, 8 were present. Group C was a world music ensemble methods class, a course designed to teach pre-service music teachers about philosophical and practical issues involved in the direction of world music ensembles. The students in the class were all music education majors, and represented a diversity of instruments and voice. In the first round of transcriptions, there were 12 students present; in the second round, 17 were present. In all three groups, participants who had prior experience with performing or notating West African djembe drumming were excluded from data analysis.

Musical Selections

The musical examples for transcription were two audio selections featuring West African drumming master Babatunde Olatunji. These two selections featured Olatunji performing traditional West African drumming patterns. In each selection, Olatunji performed a repeating djembe rhythm. The rhythms featured in the two clips were both in the Liberian style known as Fanga.

Survey Questionnaire

All participants completed a short survey. The questions were designed to clarify participants' descriptions of the musical notation systems they chose, their reasons for transcribing in the ways that they chose, and to understand their backgrounds in the transcription of West African drumming music. Questions in the survey were: (1) Which notational system did you choose to transcribe the musical example? (2) Why did you choose this notational system? (3) Have you ever received instruction/training in the notation of West African drumming music? If so, please briefly describe. (4) Have you had any conversations with your fellow students in the School of Music regarding notation of West African drumming music in the past 4 weeks? The surveys were administered twice, once accompanying each round of music transcription during data collection. In the second survey, an additional question (question 4) was used to control for the effect of participants in the different classes sharing information about musical notation systems with each other.

Procedure

A control group (group A) simply transcribed one example of West African drumming in week one of the study and then transcribed a second example two weeks later. A second group (group B) transcribed examples in weeks one and three like the control group, but in the interim engaged in a West African drumming workshop. A third group (group C) also transcribed examples in weeks one and three, engaged in a West African drumming workshop, and additionally received instruction in the three afore-mentioned notational systems (modified Western notation, TUBS, and Gun-Go-Do-Pa-Ta) commonly utilized to transcribe/notate West African drumming music.

During the two-week period that passed between the two rounds of transcriptions, Group B participated in a djembe drumming session. The activity was a 50-minute demonstration/hands-on drumming activity in which the students learned to play basic strokes on the djembe, and played a segment of a piece by djembe artist Mamady Keita entitled "Dennadon." During the drumming activity, they were not exposed to any sort of music notation, and care was taken to ensure that all of the learning of the patterns took place via aural/oral transmission and the visual/kinesthetic demonstration of the drumming strokes. The drumming activity occurred exactly two weeks, after the first round of transcriptions. At the conclusion of the drumming activity, the second round of transcriptions was carried out. Hence, all of the students who completed the second transcription had also participated in the drumming activity.

In the two weeks between the two rounds of transcriptions, the students in Group C participated in West African drumming activities during which they learned various strokes, rhythmic patterns, and pieces for the djembe. Over the course of that time, they also learned about the three common methods of notation for West African drumming discussed in the literature (Altered Western Notation, Gun-Go-Do-Pa-Ta, and TUBS). The learning activities regarding the musical notation were class lectures and discussions based on readings (such as Hood, 1971; Seeger, 1977; Koetting, 1970) and notational examples. In particular, the advantages and disadvantages of the various notational systems were discussed, in terms of cultural appropriateness (representation, authenticity, etc.), clarity and ease of understanding, and functional use in the music classroom. None of the students included in this study had indicated prior knowledge or experience in notating world musics, or had conversations with their peers about music notation for West African drumming.

The process of learning about the three notation systems was a two-directional process;

sound-to-symbol and symbol-to-sound. The students initially learned various traditional djembe patterns (e.g., patterns from Mamady Keita’s CD “Djembefola,” more specifically tracks such as “Dennadon” and “Sunnu Dansa”) without the use of notation (i.e., by ear/sight/imitation). Then, the technicalities of the three notation systems were discussed, followed by activities in which students would either realize notated patterns by playing them on the drum, or in which students would hear patterns similar to the traditional patterns they had learned and then transcribe them.

Data Analysis

Content coding was utilized to analyze the data. There were two types of data to analyze: (a) the musical transcriptions and survey responses in which the students identified the notational systems they chose, and (b) survey responses regarding why subjects chose the notational systems they did. Verbal data were coded using the principles of coding words and phrases (Patton, 2002); the musical transcriptions were coded using features in the musical notation. Based on the content analysis of the transcriptions, three main categories emerged from the musical notation data. The transcriptions were sorted into the categories of (a) Western notation transcriptions, (b) Time Unit Box System (TUBS) notation transcriptions, and (c) invented notation transcriptions. The qualitative coding process concerning the transcriptions differed from coding of verbal data. Whereas traditional content coding of words and phrases in qualitative analysis generally features an inductive approach, in which smaller fragments are grouped together to form themes and then meta-themes, the coding of the musical transcriptions made more sense from a deductive approach. In other words, perhaps due to the visual nature of musical notation, the broad categories into which the transcriptions could be divided were more

readily apparent than the finer details contained within each individual transcription. Hence, the three broad categories of Western, TUBS, and invented notations were formulated prior to the laborious sorting through each transcription.

Out of all three groups, Group C, the only group to receive instruction in the use of notation systems for djembe drumming, showed the greatest variability between the two rounds of transcriptions. As shown in Table 1, all three groups showed a preference for Western notation in the first transcription (in Group A, 36/39; in Group B, 6/7; in Group C, 12/12). Groups A and B also showed a preference for Western notation in the second transcription (in Group A, 28/29; in Group B, 8/8). However, in Group C’s second transcription, 12 out of 17 preferred to use TUBS notation, one of the alternative notation systems presented. These findings are of particular interest in this study because they suggest that music students who had learned alternative notation systems may prefer them over traditional staff notation when transcribing music from an aural/oral tradition such as West African djembe drumming.

The survey data explained why the participants chose the selected notational system for the transcription. Content coding of the survey responses from all three groups yielded the following themes (see Table 2). Knowledge of Western notation (W:KNOW), a belief in the appropriateness of Western notation for transcribing percussion music (W:PERC), the segmenting of the paper into lines (W:SEG), the clean appearance and clarity of Western notation (W:VIS), the cultural relevance of Western notation for the excerpt transcribed (W:CULTPRAC), and the ease of showing rhythms with Western notation (W:RHYTHM) were all emergent themes rooted in the reasons that students gave for choosing Western notation.

Table 1
Frequency of Transcription Notation Use (Western, TUBS, Invented, Gun-Go-Do-Pa-Ta)

	Group A (First Round)	Group A (Second Round)	Group B (First Round)	Group B (Second Round)	Group C (First Round)	Group C (Second Round)
Western	36	28	6	8	12	4
TUBS	0	0	0	0	0	12
Invented	3	1	1	0	0	1
Gun-Go-Do-Pa-Ta	0	0	0	0	0	0
TOTAL	n = 39	n = 29	n = 7	n = 8	n = 12	n = 17

Table 2
Content Codes for Survey Question #2 Regarding Western Notation Transcriptions

Code	Group A (First Round)	Group A (Sec. Round)	Group B (First Round)	Group B (Sec. Round)	Group C (First Round)	Group C (Sec. Round)	TOTAL OF ALL GROUPS
W:KNOW	16 (44.44%)	17 (60.71%)	3 (50.00%)	3 (37.50%)	8 (66.67%)	4 (100%)	51
W:PERC	1 (2.78%)	1 (3.57%)	0	0	1 (8.33%)	0	3
W:SEG	7 (19.44%)	2 (7.14%)	0	0	0	0	9
W:VIS	10 (27.78%)	3 (10.71%)	1 (16.67%)	3 (37.50%)	0	0	17
W:CULTPRAC	2 (5.56%)	0	0	0	1 (8.33%)	0	3
W:RHYTHM	0	5 (17.86%)	2 (33.33%)	2 (25.00%)	2 (16.67%)	0	11
W TOTAL	36 (100%)	28 (100%)	6 (100%)	8 (100%)	12 (100%)	4 (100%)	94

The coding of the responses to survey question #2 also afforded insight into the decision by the majority of students in Group C to use TUBS notation for the second transcription. Of the 12 students who utilized TUBS, 3 did so because they felt that it best represented the rhythms in the musical example, 2 felt that it was a more accurate way of representing the music, and 7 did so because they felt that it was the easiest way of representing the music. These response categories raised some interesting points. Western notation was utilized nearly exclusively across all three groups of students for the first transcription, as well as by Groups A and B in the second transcription. The majority of the students who chose Western notation indicated that they did so because it was the easiest for them (or the one they best knew, or in some cases the only one they knew). In the second round of transcriptions in Group C, a majority chose TUBS over Western notation because they felt it to be clearer, more accurate, and easier, *including many of those who had initially found Western notation to be their system of choice before learning about alternative notation systems for West African drumming.*

It was interesting to observe the wide variability among the Western notational devices and attributes featured in the Western notation transcriptions. Content coding of these transcriptions yielded the following (see Table 3) devices/attributes as significant: (a) time signature, (b) division into traditional measures, (c) the number of voices per staff (single or multiple), (d) the number of staff lines or spaces per voice (one or multiple), (e) single staff versus multiple-staff system, and (f) the use of additional prescriptive elements, such as the number of

times to repeat a measure or phrase, instrument keys to denote which line equals which instrument, and so forth. Descriptive quantitative analysis was utilized to organize the use of the attributes/devices according to frequency of appearance for comparison within groups and across groups.

Content coding and analysis of Group C's TUBS transcriptions also yielded interesting results. Twelve general attribute categories arose from the qualitative musical data. There were transcriptions that featured multiple adjacent rows of boxes (8), one that had multiple separate rows of boxes (1), those that had a single row of boxes (3), those featuring a single symbol for sound (11), one featuring multiple symbols for sounds, those in which blank boxes were used to indicate silence (11), one in which silence was indicated by a dash within a box, those that utilized a single rows of boxes per voice (11), one that featured multiple rows of boxes per voice, those that featured one symbol per box (11), one that featured multiple symbols per box, and those that featured additional prescriptive and/or descriptive elements, such as repeat signs, verbal directions, instrument keys, counts written above the boxes, and an indication of equality between a box unit and a Western note value.

It bears mentioning that none of the students chose to use Gun-Go-Do-Pa-Ta method for transcription. This might have been due to the nature of the transcription examples. The primary difference between this notational system and Western notation is the series of syllables used to denote various strokes on the drum. The fact that the recordings were only audio (not video) and that the students were given a relatively short time to complete their transcriptions might have

made it too difficult for the students, even those with drumming experience in the second round of transcriptions, to decipher the strokes and tones. It

would be interesting to conduct additional research using video examples and allowing participants more time to complete their transcriptions.

Table 3
Frequency of Use of Notational Devices in Western Notation Transcriptions

	Notational Elements	Traditional Time Signature	Traditional Measures	One Voice Per Staff	Multiple Voices per Staff	Single Staff Line/Space Per Voice	Multiple Staff Lines/Spaces Per Voice	Single staff	Multi-Staff System	Additional Prescriptive Elements
Group A First Round	Staff Paper	13 (36.11%)	23 (63.88%)	24 (66.67%)	6 (16.67%)	19 (52.78%)	10 (27.78%)	25 (69.45%)	4 (11.11%)	9 (25%)
	Blank Paper	3 (8.34%)	5 (13.89%)	7 (19.45%)	-	5 (13.89%)	2 (5.56%)	4 (11.11%)	3 (8.34%)	5 (13.89%)
Group A Second Round	Staff Paper	10 (35.71%)	15 (53.57%)	16 (57.14%)	2 (7.14%)	16 (57.14%)	1 (3.57%)	17 (60.71%)	1 (3.57%)	3 (10.71%)
	Blank Paper	-	4 (14.29%)	9 (32.14%)	1 (3.57%)	10 (35.71%)	1 (3.57%)	8 (28.57%)	2 (7.14%)	1 (3.57%)
Group B First Round	Staff Paper	5 (83.34%)	4 (66.67%)	2 (33.34%)	3 (50%)	5 (83.34%)	-	5 (83.34%)	-	1 (16.67%)
	Blank Paper	-	1 (16.67%)	-	1 (16.67%)	1 (16.67%)	-	1 (16.67%)	-	-
Group B Second Round	Staff Paper	4 (50%)	6 (75%)	6 (75%)	-	6 (75%)	-	6 (75%)	-	1 (12.5%)
	Blank Paper	1 (12.5%)	1 (12.5%)	2 (25%)	-	2 (25%)	-	2 (25%)	-	-
Group C First Round	Staff Paper	4 (33.34%)	7 (58.34%)	6 (50%)	3 (25%)	6 (50%)	3 (25%)	8 (66.67%)	1 (8.34%)	4 (33.34%)
	Blank Paper	1 (8.34%)	3 (25%)	2 (16.67%)	1 (8.34%)	2 (16.67%)	1 (8.34%)	1 (8.34%)	2 (16.67%)	3 (25%)
Group C Second Round	Staff Paper	-	1 (25%)	1 (25%)	1 (25%)	2 (50%)	-	2 (50%)	-	-
	Blank Paper	-	1 (25%)	1 (25%)	1 (25%)	2 (50%)	-	1 (25%)	1 (25%)	1 (25%)

In all three groups, there were also interesting invented notations devised by students to transcribe the djembe drumming examples, though these invented notations were not the focus of this study. Some of the invented notations featured drawings (presumably to represent musical instruments or the musical form of the recorded examples), others featured syllables (interesting because of the similarity to the Gun-Go-Do-Pa-Ta method, though none systematically coupled syllables with specific drum sounds), and

others featured marks to represent relative durations of beat onsets or instrumental attacks.

Summary, Implications, and Suggestions for Further Research

The non-difference between the transcriptions of groups A and B should be mentioned. It seems that participation in the drumming workshop had no effect on Group B's transcriptions. This suggests that the participants' decisions about how to notate the musical

examples may have been tied to their prior training in Western notation, as it naturally occurs in the context of undergraduate music studies in the United States. This collective attribute of the students in Groups A and B seem to have played a greater role than either Group A's identity as a pan-instrumental music theory class or Group B's identity as a percussion studio class (one might have surmised that drummers would have been better able to pick out individual drum tones, and hence might have preferred Gun-Go-Do-Pa-Ta). Furthermore, it raises the issue that undergraduate music majors are typically not taught in alternate notation systems. In other words, Western notation is not taught, unfortunately, as a function of Western music (as it should be), but rather as if it were a culturally neutral means of visually organizing sound on paper.

It surely seems that participants who were trained in alternative musical notation systems preferred them to Western notation when notating the excerpts in this study. However, the fact that participants in group C preferred TUBS over Gun-Go-Do-Pa-Ta should be pointed out. Why was this the case? One possibility is that, while both systems are viable alternatives to Western notation, TUBS may be better suited for descriptive transcription (such as transcription for understanding and analysis), whereas Gun-Go-Do-Pa-Ta may be better suited for instruction and as a prescriptive notation system. Another possibility is that the Gun-Go-Do-Pa-Ta system was visually not very different from Western notation in the way it was utilized by Olatunji. In other words, if participants felt that the use of quarter notes, eighth notes, and so forth, from Western notation were not appropriate for the transcription of West African djembe drumming, they might have shied away as well from Gun-Go-Do-Pa-Ta as a transcriptional notation. Perhaps they would use Gun-Go-Do-Pa-Ta for teaching purposes. This would be an interesting topic to explore in further research.

The results of this study are very compelling, and bear significance for the field of music education. They suggest that college music majors may find alternatives to Western notation preferable for the transcription of West African drumming music. The implication for music educators is that it is important to expose students to alternative systems of notation and instruct them in their proper uses, thus providing the students with expanded options for the transcription of diverse musics. Transcriptions may be used for the purposes of analysis (and hence deepened understanding), as well as is the process of producing musical compositions and arrangements, creative aspects of music education that often receive too little attention in the music classroom.

Conclusion

Since the 1950s, diverse world musics (i.e., African drum and dance, Indonesian gamelan, and Trinidadian steel pan, to name a few) have gained popularity in American universities. Depending on the philosophies of the teachers of these musics, the treatment of world musics as cultural process may vary. Nevertheless, unavoidably the transplantation of musics from their indigenous contexts to the classroom and concert halls, and the resulting process of change, exert pressure on the musics in question to adapt and conform to the new context. Cultures are living entities in constant states of change in reaction to world events and the movements of people. Music is not exempt from this phenomenon. Music educators should recognize the power of the lens of musical notation on their views of traditionally oral/aural world musics, and should discuss the impact of notational systems (as well as the appropriateness of the use of notation overall) on the representation of these musics with their students. This presents an opportunity to teach them in a way that is global, concerned, reflexive, and sensitive.

REFERENCES

- Abraham, O., & Hornbostel, E. M. (1994). Suggested Methods for the Transcription of Exotic Music. *Ethnomusicology*, 38(3), 425-456.
- Campbell, P. S. (2004). *Teaching music globally: Experiencing music, expressing culture*. New York: Oxford University Press.
- Choate, R. A., Fowler, C. B., Brown, C. E., & Wersen, L. G. (1967). The Tanglewood Symposium: Music in American society. *Music Educators Journal*, 54(3), 49-80.
- Consortium of National Arts Education Associations. (1994). *National standards for arts education: What every young American should know and be able to do in the arts*. Reston, VA: Music Educators National Conference.
- Hood, M. (1971). *The Ethnomusicologist*. New Edition. Kent, Ohio: The Kent State University Press.
- Hopkins, P. (1966). The Purposes of Transcription. *Ethnomusicology*, 10(3), 310-317.

- Howard, K. (2006). *Creating Korean Music: Tradition, Innovation, and the Discourse of Identity: Perspectives on Korean Music*. Volume 2. Burlington, VT: Ashgate Publishing Company.
- Jones, J., Bakan, M., Falvo, R., Teel, A., & Younge, P. Y. (2008). Developing Intercultural Understanding: World Music Ensembles in University Percussion Education. *Percussive Notes*, 46(3), 10-14.
- Koetting, J. (1970). Analysis and notation of West African drum ensemble music. *Selected Reports*. Publication of the Institute of Ethnomusicology of the University of California at Los Angeles, 1(3), 115-46.
- Koetting, J., & Knight, R. (1986). What do we know about African rhythm? *Ethnomusicology*, 30(1), 58-63.
- Merriam, A. P. (1964). *The anthropology of music*. Evanston, IL: Northwestern University Press.
- National Association of Schools of Music. (2009). *National Association of Schools of Music Handbook 2009-2010*. December, 2009 ed. Reston, VA: National Association of Schools of Music.
- Nettl, B., & Russell, M. (1998). *In the course of performance: Studies in the world of musical improvisation*. Chicago, IL: The University of Chicago Press.
- Olatunji, B. (1993). *Drums of passion songbook: The songs of Babatunde Olatunji*. (D. LeBow, Trans.) New York: Olatunji Music.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. 3rd edition. Thousand Oaks, CA: Sage.
- Seeger, C. (1977). *Studies in Musicology, 1935-1975*. Berkeley, CA: University of California Press.
- Stone, R. M. (1985). In Search of Time in African Music. *Music Theory Spectrum*, 7, 139-148.

CHINESE ABSTRACT

中文摘要

音樂專業學生學習西非鼓樂記譜法後記錄西非鼓樂的效果

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對於想要演奏和研究世界音樂的音樂教師來說，如何記錄其他文化的音樂是重要的一環。通過記譜，我們能夠更深刻的理解音樂，同時也能豐富我們舞臺表演的曲目。本研究的目的是考察美國大學音樂專業學生學習非洲鼓樂記譜法知識之後再記錄西非鼓樂的影響和效果。來自三個課堂的 64 名學生分兩次，間隔兩周，記錄了兩組西非鼓樂片斷。一個控制組和兩個實驗組加入了演奏活動，其中一個實驗組學習了三種記錄西非鼓樂的記譜法。學習過西非鼓樂記譜法的學生傾向於使用 TUBS 記譜法。筆者使用質的研究方法分析所搜集的資料，其結果顯示：相對於五線譜來說，大學音樂專業的學生可能更傾向於使用其他供選的記譜法來記錄西非鼓樂，這種傾向對於世界音樂教師來說具有啟發作用。在對不同音樂文化之間的音樂——尤其是那些用口傳心授的方法音樂進行記譜的過程中，我們應該考慮記譜系統的重要性。